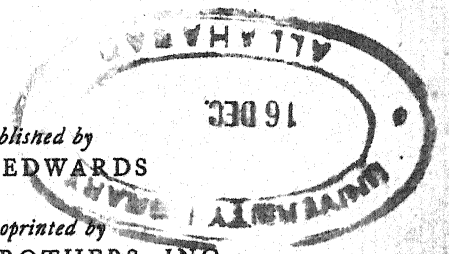
SYLLOGE
FUNGORUM

OMNIUM HUCUSQUE COGNITORUM.

DIGESSIT

P. A. SACCARDO



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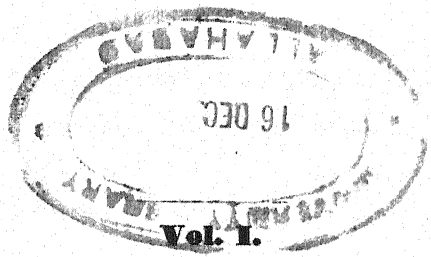
SYLLOGE

PYRENOMYCETUM

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PRÆFATIO

Quinquaginta elapsi sunt anni post systematis mycologici Friesiani editionem, nec ullum opus posthinc prodiit, quod totius orbis mycetes complecti eniteretur. Quantum observationes mycologicæ (præcipue microscopii auxilio) per decem hæc lustra accretæ, quot et quantæ in tota morphologia et taxonomia fungorum acquisitiones factæ, quot species et genera nova descripta nemo profecto mycologorum ignorat; neminemque latet utilitas, ne dicam necessitas, libri cujuscumque, collectitii quidem, ubi species omnes hucusque descriptæ inveniantur. Hoc affirmare audeo quod si intra paucos annos liber hujuscemodi adhuc defuerit, mycographia tota in chaos dilabi maxime periclitaretur; nemo enim potest innumera opera, opuscula, diaria, annales, ubi quotidie species descriptæ sunt, consulere, et inde vel species novæ frustra conditæ vel vere novæ metu inexploratæ vel oblivioni traditæ. His perpensis, operis hujusmodi perscribendi propositum duobus abhinc annis mycologis manifestavi. Et nunc eorum votis et incitamentis ferventissimis benignisque fretus, *Syllogen fungorum omnium* aggredior. Animus est, Deo favente, opus universum intra decennium absolvere et re vera copiosa adsunt jam mihi ad hoc perficiendum elementa. Sed magni mihi et scientiæ foret si collegæ æstumatissimi, gravissimi laboris partes quasdam suscipere velint; quo fieret ut et opus totum multo celerius prodiret et singulæ fungorum familiæ concinnius

elaboratæ. De Sylloge, quam suscipio, sequentia præmonenda sunt.

I. Species, quarum diagnoses eduntur, non paucæ a me ipso observatæ sunt; ceteræ ex mycologorum quam plurimorum operibus, quæ citantur, excerptæ sunt. De his vero sponsionem nullam mihi sumere licet.

II. Contigisse potest quod species identica bis vel pluries variis nominibus exponatur: sed cum de æquipollentia nominum certitudo mihi adhuc desideretur, species omnes referre coactus fui, tutius judicium autoptis relinquens.

III Diagnoses fungorum, quotquot potui (nec multas deesse spero) undecumque comparare studui. Mycologos tamen enixe rogo, ut si quas diagnoses sibi notas omiserim humanissime transmittant. Propositum est enim diagnoses omissas vel illas fungorum novorum quotannis imprimendi, et eo modo ut singula additamenta suis locis inseri queant. Mycologos insuper rogatos velim ut nominibus plantarum nutricum nonnisi latinis utantur et fungorum dimensiones tantummodo per millimetra et micromillimetra exprimant *).

IV. Diagnoses ubi completas invenire potui, ex unico auctore exscripsi vel latine reddidi; sæpe vero e duobus, raro pluribus auctoribus sese invicem perficientibus erui. Hoc vero non feci nisi quum omnino certus essem diversas auctorum notas ad eamdem speciem pertinere. Si aliter, fontes vel dubia notavi. Diagnoses plurimas nimis longas, ablatis minoris momenti notis, breviavi, rarius reformavi.

V. Species omnes hucusque cognitas, quantum fieri potuit, ad genera nuperrime strictius definita referre conatus sum. Studiosis tamen valde commendo ut suas species non sub uno genere inquirant, sed et sub affinibus omnibus; non

*) In præsenti opere, ut in præcedentibus meis, ad organa minima metienda adhibetur micromillimetrum ($= 1/1000$ millimetri) quod exprimitur signo μ. Ubi adsunt numeri, interjecto signo $\times$, primus numerus denotat maximam longitudinem, alter vero maximam latitudinem organi v. fungi partis, de qua sermo est.

raro enim forte contigit ut species quasdam mihi non visas, ob ignorantiam characterum quorundam, ad genera non stricte sua, etsi affinia, invitus adduxerim. Conferantur e. g. species *Hypoxyli* et *Nummulariæ*, *Didymellæ* et *Sphærellæ*, *Læstadiæ* et *Physalosporæ* etc. etc. *).

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VIII. Quoad fungos secundarios seu metageneticos (ad Ascomycetes spectantes) nomina plerumque tantum citavi; diagnoses vero sub proprio ordine reperientur.

IX. De dispositione systematica adhibita pauca mihi notanda. In quoque ordine quod ex auctorum systematibus mihi rectius et simplicius visum prætuli. Quoad *Pyrenomyceteas*, *Sphæropsideas*, *Melanconieas*, *Hyphomyceteas* systema sporologicum meum cum vegetativo auctorum combinatum, correctis corrigendis, adhibui. Si quid boni, simplicis et naturalis in hoc systemate insit, mycographia hæc universalis tute demonstrabit.

X. Si observationes quasdam ab illis Auctorum descriscentes addere necessarium duxerim, has inter signa « » imprimi curavi.

XI. Index librorum mycologorum, (re vera fere omnium

*) Errores et facillime vitandos nonnullos jam irrepsisse candide fateor. Sic species n. 881 evidentissime eadem est ac n. 847; species n. 2171 omnino eadem ac n. 2196. Sed lectores veniam dabunt, spero, ubi meminisse velint schedulas diagnosum fere innumeras et multiformes, perlongo labore fuisse mihi digerendas, seligendas et in systema ordinandas.

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hucusque editorum) ex quibus diagnoses excerpsi, Syllogi præmittitur. Si libros quosdam et hinc diagnoses contentas omiserim mycologis tunc facile patebit.

XII. Ad finem cujusque sectionis vel subordinis addidi repertorium alphabeticum specierum secundum matrices, quod quam utile sit in nominibus fungorum inquirendis nemo est qui ignoret. Tam repertorium istud, quam indicem librorum prædictum, peritiæ et diligentiæ JACOBI BIZZOZERO, Horti patavini conservatori debeo, cui publice permultas ago gratias.

Restat nunc ut botanicis æstumatissimis amicisque plurimis tam Europæ quam Americæ, qui operi meo strenue variisque rationibus faverunt, gratias perquam maximas agam. Inter quos licitum sit mihi illos tantum citare qui vel suorum magni pretii operum duplum exemplar mittendo, vel libros perraros mycologicos commodando vel transcribendo, vel tandem operis notitiam per diaria benevole diffundendo, Sylloges vitam excitarunt; qui sunt: M. J. BERKELEY [1]), T. CARUEL, V. CESATI, M. C. COOKE, J. B. ELLIS, J. H. FABRE, P. A. KARSTEN, E. LAMBOTTE, G. DE NIESSL, G. PASSERINI, C. PECK, N. PEDICINO, O. PENZIG [2]), DOCT. REHM, C. ROUMEGUÉRE, J. SCHRÖTER, C. SPEGAZZINI, F. DE THÜMEN, G. WINTER.

Patavii, XIII Junii, MDCCCLXXXII.

P. A. SACCARDO

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1) Referre lætor illustrissimum et venerabilem BERKELEY benevole mihi misisse (præter alia opera sua) schedulas permultas diagnoses Hymenomycetum a se jam editorum continentes, quas paraverat ad Syllogen concinnandam, quæ in omnium votis erat. Occupationes vero tardaque ætas propositum impediverunt. Utinam celeberrimo Viro datum sit fructus suos videre cunctos in hac Sylloge systematice recollectos.

2) Fungorum aliquot nondum plene descriptorum egregius et amicus prof. PENZIG paravit adumbrationes, quibus usus sum ad eorumdem diagnoses perficiendas.

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PYRENOMYCETEÆ Fr. em. De Not.

Giorn. bot. ital. II. p. 322 (1844)

Fungi perithecio ascigero instructi, ut plurimum phytogeni, rarius zoogeni, numquam vere terrestres. Adsunt in plerisque varii status secundarii seu metagenetici familias Sphæropsidearum, Melanconiearum atque Hyphomycetearum sistentes.

Fam. 1. **Perisporiaceæ** Fr. Summa V. S. p. 375 p. p.

Simplices. Perithecia membranacea, coriacea v. subcarbonacea tota clausa, hinc astoma et irregulariter fissilia.

Subfam. 1. **Erysipheæ** Lév.

Biogenæ, seu parasiticæ in plantis vivis, mycelio effuso arachnoideo albido (plerumque *Oidii erysiphoidis* formas sistente) insertæ. Perithecia appendicibus variis plerumque eumorphis instructa subglobosa, astoma, tenui-membranacea.

Clavis analytica generum.

1. **Amerosporæ**: sporidiis ovoideis continuis hyalinis.

Perithecia	monoasca; asci 8-spori; carpogonia orthotropa; perithecii appendices	apice pluries refracto-dichotomæ	*Podosphæra*
		simplices v. vage ramosæ, hyphoideæ	*Sphærotheca*
	polyasca; asci 2-8-spori; carpogonia campylotropa; perithecii appendices	aciculares, basi sæpe inflatæ	*Phyllactinia*
		apice uncinatæ; asci globoso-ovoidei	*Uncinula*
		apice rectæ; asci teretiusculi	*Pleochæta*
		apice pluries refracto-dichotomæ	*Microsphæra*
		simplices vageve ramosæ; asci ovoidei	*Erysiphe*
		obsoletæ; asci oblongi	*Erysiphella*

2. **Dictyosporæ**: sporidiis clathrato-septatis.

Perithecia polyasca; asci octospori globosi v. oblongi . . *Saccardia*

Sect. 1. Amerosporæ.

a) Perithecia monoasca.

PODOSPHÆRA Kunze Myc. Heft. II. p. 111. Lév. Ann. Sc. nat. 1851 XV. p. 135 (Etym. *pous*, pes et *sphæra*, h. e. sphærula quasi pedicellis instructa). — Mycelium effusum arachnoideum, plerumque evanidum; perithecia sphærica, monoasca, asco octosporo; sporidia ovoidea, continua, hyalina; appendices parcæ (3–8), dichotomæ, fuscæ, apice hyalinæ, turgidæ. Stat. conidicus *Oidii erysiphoidis* formas sistens.

Clavis specierum.

Appendices perithecium subæquantes	*Oxyacanthæ*
» perithecio triplo longiores radiatim divergentes	*myrtillina*
» » » » erecto-fasciculatæ .	*tridactyla*
» » 6-10-plo longiores cirrhosæ . .	*Schlechtendalii*
» » » » hiuncinatæ . .	*hiuncinata*

1. **Podosphæra Oxyacanthæ** (DC.) de Bary Syst. Ueb. Erys. in Hedw. 1871 p. 68. *Erysiphe Oxyacanthæ* DC. (1815), *Podosphæra clandestina* (Wallr. 1819) Lév. in Ann. Sc. nat. 1851 p. 135 t. 6. fig. 5. — Amphigena; peritheciis minutis, globosis, sparsis; appendicibus (8–10) perithecium sub-æquantibus, ramulis brevibus apice dilatato-rotundatis. 1

Hab. in foliis Cratægi Oxyacanthæ et C. monogynæ in tota fere Europa, Algeria etc.

2. **Podosphæra myrtillina** Kunze Myk. Heft. II. p. 111. *P. Kunzei* Lév. in Ann. Sc. nat, 1851, tom. XV., p. 135 (p. p.), t. 6. f. 6. — Amphigena; peritheciis sparsis, sphæroideis, minutis; appendicibus ter perithecii diametrum superantibus, pluribus (6–10), in perithecii parte superiore sparsis, radiatim divergentibus aut arcuatim reflexis. 2

Hab. in foliis vivis Vaccinii Myrtilli, in Suecia, Germania, Belgio, Italia etc.

3. **Podosphæra tridactyla** (Wallr.) de Bary Syst. Ueb. Erys. in Hedw. 1871 p. 68. *Alphitomorpha tridactyla* Wallr. *Podosphæra Kunzei* Lév. in Ann. Sc. nat. (p. p. in Prunis). — Amphigena; peritheciis sphæroideis minutis, appendicibus paucis (3–7) e summo perithecio erectis, parallelis. 3

Hab. in utraque pagina Pruni Padi, P. spinosæ, P. Cerasi, P. domesticæ etc. in tota fere Europa, America boreali.

4. **Podosphæra Schlechtendalii** Lév. Disp. meth. Erys. p. 29 t. 6. 4
fig. 7. — Hypophylla; peritheciis globosis minutis sparsis; appendicibus parcis, longissimis, perithecii diametrum decies superantibus, ramulis filiformibus cirrhosis.

Hab. Nenilly prope Parisios ad folia Salicis albæ et viminalis.

5. **Podosphæra biuncinata** C. et Peck 22 Rep. p. 94. — Mycelio tenui; 5
peritheciis minutis, nigris; appendicibus 6–10, longissimis, hyalinis, bi-uncinatis, apicibus quandoque repetito-divisis; asco globoso, octosporo.

Hab. in Amer. boreal., Poughkeepsie, New-Baltimore etc. in foliis Hamamelidis virginianæ. — Appendicularum rami curvuli, fere rectangulo-patentes.

SPHÆROTHECA Lév. in Ann. Scienc. nat. 1851 XV. p. 138 (Etym. *sphæra* et *theca*, h. e. ascus sphæricus). — Perithecia monoasca, appendicibus floccosis vagis mycelio intertextis cincta; ascus globosus, octosporus; sporidia ovoidea, continua, hyalina. — St. conidicus *Oidii erysiphoidis* v. *leucoconii* formas sistit.

Clavis specierum.

Species calyci-foliicolæ; appendices hyalinæ	mycelium crassum pannosum	*pannosa*
	mycelium tenue pruinosum	*pruinosa*
Species foliicolæ; appendices fuligineæ	vage ramosæ: ascus amplus	*Castagnei*
	vage ramosæ: ascus minor	*Niesslii*
	setiformes, simplices, copiosæ	*Epilobii*
	parcissimæ v. nullæ	*detonsa*
Species fructicola		*Mors-uvæ*

1. **Sphærotheca pannosa** (Wallr.) Lév. Ann. Scienc. nat. 1851 XV. 6
p. 138 t. 6 fig. 8. *Alphitomorpha pannosa* Wallr. (1819). — Mycelio lanuginoso, dein pannoso, persistente; peritheciis minutis, globosis, sparsis; appendicibus floccosis, hyalinis, perithecio brevioribus; ascis globulosis; sporidiis octonis ovoideis.

Hab. in foliis, calycibus ramulisque Rosarum cultarum, perithecia plerumque in calycibus ramulisque tantum, in Anglia, Gallia, Belgio, Italia, Germania, Amer. bor., India. — St. conidicus *Oidium leucoconium* Desm. sistit.

2. **Sphærotheca pruinosa** C. et Peck 25 Rep. p. 91. — Hypogena; 7
mycelio tenui, effuso, persistente; peritheciis minutis nigris; appendicibus parcis, longis, hyalinis; asco ovato, octosporo.

Hab. in Amer. boreal. Greenbush in foliis Rhois glabræ. — A *Sph. Castagnei* præcipue differt appendiculis longis, hyalinis.

3. **Sphærotheca Castagnei** Lév. in Ann. Scienc. nat. 1851, tom. XV., p. 139, t. 6, f. 9 et 10. *Erysiphe macularis, Dipsacearum, Potentillæ, fuliginea, ferruginea, fumosa* etc. Auct. — Amphigena. Mycelio effuso, arachnoideo, plerumque evanido; peritheciis sparsis, sphæroideis, minutis; appendicibus numerosis, brevibus, sursum flexis. 8

Hab. in foliis Rosacearum, Compositarum, Scrophulariacearum, Cucurbitacearum, Urticacearum, Plantaginearum in tota fere Europa, America boreali, Asia.

4. **Sphærotheca Niesslii** Verhandl. z. b. Gesell. Wien. (1879). — Mycelio subnullo, evanescente; peritheciis hypophyllis, parvulis, sparsis vel pro ratione subsolitariis et nunquam aggregatis ut in S. Castagnei, oculo nudo atris, membrana tenui, globosis, fuscis, clathrato-areolatis sed lævibus, 80–120 μ. plerumque 86 d.; appendiculis brevibus, numerosis, filiformibus, simplicibus, dilute fuligineis vel sæpe subhyalinis, apice obtusatis, 4–5 μ. crassis; ascis unicis, acutato-ovoideis, latis, membrana lævi, 2 μ. crassis hyalinis, 80 ≃ 60–64 crass.; sporidiis ellipsoideis, utrinque rotundatis, octo, lævibus, achrois, 20–24 ≃ 15–16, endoplasmate subgranuloso. 9

Hab. in foliis surculorum juniorum Sorbi Ariæ, in viridario Jesuitarum Kalksburg et Leopoldsberg prope Vindobonam; in Apennino Mutinensi (Italia) Sept., Oct. — Peritheciis et ascis multo minoribus a *Sph. Castagnei* distinguitur.

5. **Sphærotheca Epilobii** (Link.) De Bary Syst. Uebers. d. Erysiph. in Hedw. 1871 p. 68. *Erysiphe Epilobii* Link. Sp. pl. VI. 102. — Mycelio densissimo, ramis erectis conidiophoris et sterilibus onusto; peritheciis dense congregatis, appendicibus fuscis, simplicibus setiformibus radiatim patentibus undique horridis; ascis et sporidiis generis. 10

Hab. in Epilobii parviflori foliis, ubi maculæ magnæ fuscæ subbullatæ oriuntur, in Germania.

6. **Sphærotheca detonsa** (Fr.) Kickx Fl. crypt. Fl. I. 375. *Erysiphe detonsa* Fr. — Mycelio effuso, sordide rufescente, peritheciis globulosis, fusco-brunneis, sub vitro rufis; ascis solitariis, globulosis; appendicibus 3–4 a mycelio vix discretis, simplicibus furcatisve, flexuosis, brevibus, interdum obsoletis. 11

Hab. in foliis Apargiæ, Erigèrontis in Belgio (Kickx);

in foliis Tanaceti in Vogesis (Mougeot, t. Fries). — Specimina Mougeotiana pertinerent sec. Léveillé ad *Phyllactiniam*, quod vere improbabile videtur.

7. **Sphærotheca Mors-uvæ** (Schw.) Berk. et Curt. in Grev. IV. p. 158. 12
Thuem. F. pomic. 92. *Erysiphe Mors-uvæ* Schw. — Mycelio denso, crassiusculo, margine albo, centro fusco-brunneo; peritheciis minutis, crebris, sparsis, atris, applanato-globosis, rugulosis, e mycelio denique emergentibus (Schw); sporidiis 15 μ. long. sec. B. et C. l. c.

Hab. in Amer. bor. Pensylvania (Schw.) et Carolina sup. (Curtis) in baccis Ribis Uvæ crispæ.

b) Perithecia polyasca.

PHYLLACTINIA Lév. in Ann. Sc. nat. 1851, p. 144. (Etym. *phyllon*, folium et *actin* radius). — Perithecia globoso-depressa, polyasca, majuscula, appendiculata, mycelio arachnoideo (*Oidii*) insidentia. Appendices aciculares, rectæ, radiantes basi vesiculoso-inflatæ. Asci 2-4-spori. — Sec. Tulasne pycnidia adsunt peritheciis ascophoris similia sed stylosporas fuscidulas ovoideas foventia.

1. **Phyllactinia suffulta** (Reb.) Sacc. Mich. II., p. 50. *Ph. guttata* 13
(Wallr.) Lév. in Ann. Sc. nat. 1851, tom. XV, p. 144, t. 7, f. 11. — Amphigena sed sæpius hypophylla; mycelio arachnoideo plerumque evanido; peritheciis sparsis hemisphæricis, demum depressis, magnis; appendicibus hyalinis, simplicibus; ascis in singulo perithecio 4-20, breviter pedicellatis 2-4-sporis.

Hab. ad folia viva Alni, Cratægi, Pyri, Mespili, Loniceræ, Fagi, Coryli, Quercus, Carpini, Betulæ, Fraxini, Catalpæ, Corni, Celastri etc. in tota fere Europa, Sibiria asiatica, America boreali, per æstatem et autumnum.

Obs. Speciei synonymia, quam extricare conatus sum, sequens est: *Sclerotium Erysiphe β corylea* Pers. (1801), *Scl.* (Erysibe) *suffulta* Rebent. (1804), *E. Coryli* DC. (1805), *E. vagans* Biv. Bernh. (1815), *E. pachypus* Martius (1817), *Alphitomorpha guttata* Wallr. (1819). Ex quo patet nomen Rebentischii esse jure prioritatis præferendum. Observandum quod *Mucor Erysiphe* Linnæi et *Sclerotium Erisiphe* Pers. omnes pene Erysiphaceas complectantur.

2. **Phyllactinia Candollei** Lév. Disp. meth. Erys. p. 42. — Hypo- 14
phylla; mycelio tenui evanido; peritheciis sparsis, magnis; ascis 8, tetrasporis.

Hab. in Amer. sept. ad folia Nyssæ (herb. DC.); Canada, Poe (n. 6164 ex Grevillea). — A *Ph. suffulta* (Reb.) differt ascis octonis, tetrasporis.

3. **?Phyllactinia Schweinitzii** Lév. Disp. meth. Erysiph. p. 42. — Hypophylla; mycelio arachnoideo, evanido; peritheciis magnis, sparsis, hemisphæricis demum depressis, appendicibus nigris; ascis sporidiisque..... 15

Hab. Meudón (Gallia), ad folia Quercus sessilifloræ (Lév. l. c.). — Species dubia et ob ignotam fructificationem et ob defectum vesiculæ basilaris appendicularum.

4. **?Phyllactinia fungicola** (Schulz.) Sacc. *Erysiphe fungicola* Schulz. Myk. in Œsterr. bot. Zeit. 1876, p. 58. — Peritheciis brunneo-fuscis, sphæricis, 300 μ. diam., subiculo mucedineo stellatim effuso insidentibus; conidiis in hyphis acrogenis brunneis; appendicibus radiatis, basi inflatis; ascis vesicularibus, copiosis, 1-2-sporis; sporidiis ovato-cylindraceis 4 ≃ 1,5. 16

Hab. in superficie Boleti duriusculi, Slavonia. — Videtur *Phyllactiniæ* species, sed ob habitationem insuetam dubia.

UNCINULA Lév. in Ann. Sc. nat. 1851, XVI, p. 151. (Etym. ab *unco*, quia appendices uncinatæ). — Perithecia polyasca, ascis bi-octosporis; appendices simplices ramosæve, apice uncinatæ, hyalinæ. Mycelium arachnoideum v. pruinosum, conidiis ovoideis, *Oidii erysiphoidis* formas sistens.

Clavis specierum.

Asci bispori	in quovis perithecio quaterni		*Bivonæ*
	in quovis perithecio plures (8-12)		*macrospora*
Asci trispori			*intermedia*
Asci tetraspori			*adunca*
Asci 4-6-spori	appendices omnino hyalinæ		*Clintonii*
	appendices deorsum fuligineæ		*Ampelopsidis*
Asci 6-spori	appendices sursum non contortæ		*Prunastri*
	appendices sursum spiraliter contortæ		*americana*
Asci 8-spori	conidia ovoidea	appendices rectæ	appendices flexuosæ	*flexuosa*
			appendices bifidæ, uncinatæ	*Aceris*
			appendices simplices	*circinata*
	conidia globosa			*Tulasnei*

1. **Uncinula Bivonæ** Lév. in Ann. Scienc. nat. XV. 1851 t. 7 fig. 14. *Erysiphe clandestina* Biv. Bern. (1815). — Mycelio arachnoideo evanido; peritheciis plerumque sparsis minutis; ascis quaternis, 17

subglobosis, bisporis; appendicibus perithecium vix superantibus, apice uncinatis.

Hab. in foliis Ulmi campestris in Gallia, Italia, Germania.

2. **Uncinula macrospora** Peck. 25 Rep. p. 95 (1871). — Mycelio effuso, 18
persistente; peritheciis subglobosis; appendiculis copiosis (30 vel pluribus), perithecium fere æquantibus; ascis 8-12, bisporis; sporidiis magnis ellipsoideis, 30-36 μ. longis.

Hab. in Amer. bor. Buffalo, in foliis Ulmi americanæ. — Ab *U. Bivonæ* differt ascis et appendiculis copiosioribus, mycelioque persistente.

3. **Uncinula intermedia** B. et C., Berk. North Amer. Fungi n. 995 19
(1876). — Peritheciis in macula lata candida insidentibus; appendicibus plurimis; sporidiis majoribus, ternis.

Hab. in foliis Ulmi, Alabama, Amer. bor. — Verisimiliter non differt ab *U. macrospora* Peck.

4. **Uncinula adunca** (Wallr.) Lév. in Ann. Sc. nat. 1851, tom. XV., 20
p. 151, t. 7, f. 15, *Alphitomorpha adunca* Wallr. — Mycelio vario; peritheciis sparsis vel gregariis, minutis; ascis in singulo perithecio 8-12, subpyriformibus, 4-sporis: appendicibus simplicibus uncinatis.

Hab. in utraque pagina Populorum, Salicum, Betularum in Europa tota, Sibiria asiatica, Amer. boreali.

5. **Uncinula Clintoni** Peck. 26 Rep. p. 96. — Amphigena; mycelio te- 21
nui, persistente; peritheciis minutis globosis, nigris; appendiculis 15-25, perithecium subæquantibus, hyalinis, apice uncinatis parumque incrassatis; ascis 4-6, 4-6-sporis.

Hab. in Amer. bor. Buffalo, Watkins, in foliis Tiliæ americanæ. — Apicibus appendicularum incrassatis species facile dignoscenda. Mycelium in pag. superiore magis conspicuum.

6. **Uncinula Ampelopsidis** Peck. 25 Rep. (1871). *Unc. subfusca* B. 22
et C., Berk North. Amer. Fungi n.° 994 (1876). — Amphigena; mycelio arachnoideo, tenui evanescente; peritheciis, minutis globosis, nigris; appendiculis 10-20 perithecium æquantibus vel duplo longioribus, indivisis, obscure prope basim, septatis, fuscisque, sursum pallidioribus; ascis 4-6, subglobosis ovatisve, 4-6-sporis.

Hab. in Amer. boreal. Buffalo, Greenbush, in foliis Ampelopsidis quinquefoliæ. — Appendicibus coloratis species mox dignoscenda. Appendices sec. Berk. sæpe sursum contortæ.

7. **Uncinula Prunastri** (DC.) Sacc. *Erysiphe Prunastri* DC. (1815) 23
Uncinula Wallrothii Lév. in Ann. Sc. nat. 1851, XV., p. 153,

t. 7, fig. 16. — Amphigena; mycelio arachnoideo evanescente; peritheciis minutis, sparsis; ascis 12–16 in quoque perithecio, pyriformibus, 6-sporis; appendicibus numerosis, perithecium duplum æquantibus.

Hab. in foliis Pruni spinosæ in Britannia, Belgio, Gallia, Italia, Germania.

8. **Uncinula americana** How. (1872) *U. spiralis* B. et Curt. North Am. Fungi n. 992 (1876). — Amphigena, mycelio tenui, subarachnoideo, cito evanido; peritheciis globosis, sparsis, minutis atronitidis, levibus; appendicibus longis flexuoso-subcurvatis perithecium bis fere superantibus, apice spirali; ascis late pyriformibus v. ovoideo-pyriformibus, hyalinis, 80 μ. d.; sporidiis senis, ellipsoideis utrinque rotundatis, interdum inæquilateralibus, 20 ≃ 8–10 (secundum Thuem. Pilze d. Weinst. p. 183). 24

Hab. in foliis Vitis cordifoliæ et Labruscæ, Albany, New-York, New Baltimore, Buffalo, Poughkeepsie. — *U. spiralis* ab *U. americana* vix differt appendicibus minus longis.

9. **Uncinula geniculata** Ger. in Just Bot. Jahr. 1874 p. 301. — Mycelio persistente, orbiculatim effuso v. totam folii pag. superiorem obducente; peritheciis 100 μ. diam.; appendicibus 30–40, perithecio sesquilongioribus; ascis 5–8, ovoideis, subrostratis; sporidiis senis. 25

Hab. in Amer. bor. Poughkeepsie, in foliis Mori rubræ. — Appendices sæpe leniter geniculatæ.

10. **Uncinula flexuosa** Peck. Trans. Albany Inst. v. VII, p. 215, f. 10–12 (1872). — Mycelio tenui, arachnoideo, evanido; peritheciis minutis, 80–90 μ. d., appendicibus 15–25, perithecium subæquantibus, sursum flexuosis, et interdum subincrassatis; ascis 8–10, ovoideis v. ellipticis; sporidiis octonis, ellipsoideis, 17–20 μ. long. 26

Hab. in pag. sup. foliorum Æsculi Hippocastani, Buffalo, Am. bor. (G. W. Clinton) Sept. — Appendicibus flexuosis, ascisque octonis ab *U. adunca* dignoscitur.

11. **Uncinula Aceris** (DC.) Sacc. *Erysiphe Aceris* DC. (1815) *Unc. bicornis* (Wallr., 1819) Lév. Ann. Scienc. nat. 1851, XV, p. 153, t. 7, fig. 17. — Amphigena; mycelio arachnoideo, effuso, evanido, v. subpersistente; peritheciis hemisphæricis, denique depressis; appendicibus simplicibus, bifidis v. dichotomis, apicibus uncinatis; ascis octonis, subpyriformibus, octosporis. 27

Hab. in foliis Aceris campestris, Ac. Pseudoplatani et (teste Lév.) Phyllireæ in tota fere Europa, Algeria.

12. **Uncinula circinata** C. et Peck. 25 Rep. p. 96. — Mycelio denso ef- 28

fuso, persistente; peritheciis majusculis depressis, nigris; appendiculis copiosissimis, angustis, perithecium subæquantibus, simplibus, hyalinis; ascis oblongis v. anguste ovoideis, 8-16, octosporis.

Hab. in Amer. bor. Watkins et Greenbush, in foliis Aceris spicati et rubri. — Ab *U. Aceris* differt quia hypophylla, ascis copiosioribus, appendicibusque simplicibus prædita.

13. **Uncinula Tulasnei** Fuck. Symb. Mycol. p. 81. — Mycelio orbiculatim 29
effuso, epiphyllo, niveo, margine fimbriato; conidiis catenulatis, perfecte globosis 8 μ. d.; peritheciis sparsis mycelio subimmersis, majusculis, hemisphæricis demum depressis, atris; appendicibus plerumque simplicibus v. bifidis, raro bis bifidis; ascis octonis, octosporis.

Hab. in pag. sup. foliorum Aceris platanoidis, circa Johannisberg in Rhenogovia. — Præcipue habitu et conidiis globosis dignoscenda species.

Species nomine tantum notæ

14. **Uncinula luculenta** Howe (citat. in Peck 29 Rep. on the St. Mus.). 30
Hab. in foliis Populi heterophyllæ in Amer. bor.

15. **Uncinula parvula** C. et P. (citat. in Peck 26 Rep. on the St. Mus.). 31
Hab. in foliis Celtidis occidentalis, Poughkeepsie, Amer. bor. (Gerard).

PLEOCHÆTA Sacc. et Speg. Michel. II. p. (Etym. *Pleon*, plus et *chæta*, seta). — Perithecia subiculo mucedineo insidentia, globuloso-lenticularia, astoma, contextu parenchymatico solidiusculo, setis copiosissimis radiantibus, bacillaribus, rectis, simplicibus, hyalinis cincta. Asci clavulati, bispori; sporidia ellipsoidea, continua, subhyalina. — Setis creberrimis rectis, contextu perithecii subcoriaceo, ascis teretiusculis etc., ab *Erysiphe* et *Uncinula* dignositur.

1. **Pleochæta Curtisii** Sacc. et Speg. Fung. Arg. Pug. II. p. 44. *Erysi-* 32
phe et *Uncinula polychæta* Berk. et Curt. Grev. 1876 p. 159. *Uncinula Lynckii* Speg. Fung. Arg. Pug. II. p. 17 n.° 54. — Mycelio hypophyllo, orbiculatim effuso albido-lutescente; peritheciis sparsis; appendicibus (circ. 28) perithecio sesquilongioribus, hyalinis; ascis tereti-clavatis in stipitem basi nodulosum productis 80-90 ≃ 25-30, bisporis; sporidiis ellipsoideis, 25 ≃ 17, hyalinis.

Hab. in pag. infer. foliorum Celtidis Talæ et C. occi-

dentalis prope *Buenos-Ayres*, Apr. 1880 (Spegazzini), Alabama et Carolina (Curtis).

MICROSPHÆRA Lév. Disp. meth. Erysiph. in Ann. Scienc. nat. 1851 II. pag. 381 (ubi nomen *Calocladiæ* paulo ante a se propositum [l. c. p. 154] sed ineptum, quia jamdudum a Grevilleo pro Algarum genere usurpatum, in *Microsphæram* mutandum declarat). — Perithecia polyasca, ascis ovoideis oblongisve, 4–8-sporis. Appendices sursum dichotomæ. Mycelium arachnoideum *Oidii erysiphoidis* formas varias sistens.

Clavis specierum.

Asci 4-spori . .	*Dubyi* *Hedwigii* *abbreviata* *divaricata* *Evonymi* *semitonsa*	Asci 6-spori. . . .	*Euphorbiæ* *Friesii*
Asci 2-spori . .	*Lycii*	Asci 6-8-spori . . .	*Vaccinii* *Berberidis*
Asci 4-6-spori .	*Grossulariæ* *Astragali* *diffusa* *Russellii* *pulchra* *extensa*	Asci 8-spori . . .	*penicillata* *Ehrenbergii* *Van-Bruntiana* *Ravenelii*
		Asci non visi	*fulvo-fulcra*
		Species minus notæ.	*Platani* *Symphoricarpi* *Menispermi* *densissima*

1. **Microsphæra Lycii** (Lasch.) Sacc. et Roum. Mich. II. 310. *M. Mougeotii* Lév. (1851). *Erysiphe Lycii* Lasch. (1850). — Mycelio arachnoideo, plerumque persistente; haustoriis plerumque appendiculatis, numquam lobulatis; conidiis breve cylindrico-oblongis; peritheciis minutis globoso-depressis, appendiculis copiosis, radiatim divergentibus, hyalinis, perithecii diametrum duplo superantibus, quater, raro ter dichotomis, apicibus obtusis; ascis 12–16, parvis bisporis. 33

   Hab. in Germania, Anglia, Gallia, Italia, Amer. bor. in foliis Lycii europæi, L. ruthenici, L. barbari (et Desmodii teste Berk.).

2. **Microsphæra Dubyi** Lév. Erys. p. 40, t. 9, fig. 26. — Kx Fl. crypt. 34

Flandr. I. 379. — *Erysiphe abnormis* Duby p. p. — Mycelio effuso arachnoideo vel subcontexto evanido vel persistente: peritheciis sparsis vel gregariis globosis, minutis; ascis 4 ovatis subrostratis 4-sporis; appendicibus parcis (7–10) perithecio vix longioribus, ramulis bicornibus.

Hab. in Italia, Gallia, in foliis Loniceræ Caprifolii; Amer. bor. in foliis Loniceræ parvifloræ.

3. **Microsphæra Hedwigii** Lév. in Ann. Scienc. nat. 1851, XV, p. 155, t. 8, fig. 19. — Hypophylla; mycelio arachnoideo, evanido; peritheciis minutis globosis, sparsis; appendicibus paucis, perithecio paulo longioribus; ascis quaternis, 4-sporis. 35

Hab. in Anglia, Italia, Belgio, Germania, Amer. bor. in foliis Viburni Lantanæ, V. Lentaginis (et Quercus t. Berk.) Forte *E. Viburni* Schw. (et Howe?) huc spectat.

4. **Microsphæra abbreviata** Peck 28 Rep. St. Mas. N. York. t. 2, fig. 4–5. — Mycelio tenui; peritheciis minutis, appendicibus 6–15, hyalinis, asperulis, perithecio brevioribus, apice pluries dichotomis, ramulis ultimis curvatis; ascis 3–4, plerumque 4-sporis, rarius 3–5-sporis; sporidiis ellipsoideis 25–32 ≃ 16. 36

Hab. in Amer. bor. Buffalo, in pag. inf. foliorum Quercus bicoloris (Clinton). — Affinis *M. Hedwigii*, a qua differt appendicibus scabriusculis, brevibus,

5. **Mycrosphæra divaricata** (Wallr.) Lév. in Ann. Scienc. nat. 1851, tom. XV, p. 155, t. 8, f. 18. *Alphitomorpha divaricata* Wallr. — Hypophylla; mycelio arachnoideo, evanido; peritheciis sparsis, sphæroideis, minutis; ascis in quovis perithecio 4, ovoideo-rostratis, 4-sporis; appendicibus parcis, perithecio quinquies longioribus. 37

Hab. in Gallia, Germania, Fennia, Belgio, in foliis vivis Rhamni Frangulæ æstate et autumno passim.

6. **Microsphæra Evonymi** (DC.) Sacc. *Erysiphe Evonymi* DC. (1815). *Micr. comata* (Wallr.) Lév. Ann. Sc. nat. 1851, XV, p. 157, t. 9, f. 23. *Alphitomorpha comata* Wallr. (1819). — Hypophylla; mycelio arachnoideo, fugaci; peritheciis sparsis, minutis, globosis; ascis 8, ovoideo-subrostratis, 4-sporis; appendicibus paucis, perithecio sextuplo longioribus. 38

Hab. in Gallia, Italia, Germania, Anglia, Belgio in foliis Evonymi europæi, autumno.

7. **Microsphæra semitonsa.** B. et C. Berk. North Am. Fungi N. 996. — Mycelio parco; peritheciis sparsis; appendicibus deorsum abrupte fuscis; sporidiis quaternis. 39

Hab. in foliis Cephalanthi in Carolina sup. — Mycelium evanescens; appendices ter furcatæ, perithecio duplo longiores.

8. **Microsphæra Grossulariæ** Lév. Disp. Erys. in Ann. Sc. Nat. 1851. XV. p. 160, t. 9, fig. 25. *Er. penicillata var. Grossulariæ* Link. — Amphigena; peritheciis minutis, globulosis, sparsis gregariisque, mycelio arachnoideo insidentibus; appendicibus 10–15, perithecia æquantibus, vage dichotomis, ramulis ultimis bidentatis; ascis 4–8, ovoideis, 4–5-sporis. 40

Hab. in Gallia, Anglia, Germania, Amer. bor., Sibiria asiatica, in foliis Ribis Grossulariæ (et Sambuci canad. t. Berk).

9. **Microsphæra Astragali** (DC.) Trev. *Alphitomorpha holosericea* Wallr. (1819) *Erysiphe Astragali* DC. (1815) *Micr. holosericea* (Wallr.) Lév. Ann. Sc. nat. 1851, p. 159, t. 9, fig. 27. — Mycelio arachnoideo fugaci; peritheciis minutis, sparsis v. gregariis, globulosis; appendicibus 12–16 perithecio sextuplo longioribus, simplicibus bifidisve; ascis suboctonis, 4–6-sporis. 41

Hab. in Gallia, Belgio, Italia, Germania, America bor. in foliis Astragali Glycyphylli et Cooperi, Autumno. — Ob appendices non definite dichotomas an potius ex Erysiphes genere?

10. **Microsphæra diffusa** C. et Peck 25 Rep. p. 95. — Mycelio tenui evanescente; peritheciis minutis, globulosis, nigris; appendiculis copiosis (18–25) perithecium æquantibus v. duplo longioribus, hyalinis, interdum vage ramosis apiceque nodulosis; ascis 4–6, ovatis 4–6-sporis. 42

Hab. Amer. bor., Albany, in foliis Desmodii canadensis plerumque epiphylla.

11. **Microsphæra Russellii** Clint., Peck 26 Rep. 80. — Amphigena; mycelio arachnoideo, evanescente; appendicibus 8–18, longissimis, flexuosis, coloratis, versus apicem simplicem aut bis terve divisum rectiusculum dilutioribus; ascis ovatis, 4–8; sporidiis 4–6 ellipsoideis 17–20 ≃ 10. 43

Hab. in Amer. bor. Buffalo, North Greenbush, in foliis et petiolis Oxalidis strictæ. «Appendices perithecium sextuplo superantes; asci 46–48 μ. diam.».

12. **Microsphæra pulchra** C. et Peck 25 Rep. p. 95. — Amphigena; mycelio tenui persistente; peritheciis numerosis, globosis, nigris; appendiculis octo-duodecim, fere perithecium æquantibus, hyalinis «apice pluries refracto-dichotomis, apicibus obtuse bidentatis; ascis 4–5; sporidiis 4–6, 18–20 ≃ 8–10». 44

Hab. in Amer. boreal. Greenbush, in foliis Corni alterni-

foliæ. — Mycelium in pag. superiore magis conspicuum. « Asci globulosi 50 ≃ 40 ».

13. **Microsphæra extensa** C. et Peck. 25 Rep. p. 95. — Mycelio tenui, effuso, persistente; peritheciis globosis, nigris; appendiculis 8-12 perithecium ter vel quater superantibus, hyalinis; ascis 4, subglobosis aut ovatis, 4-6-sporis. 45

Hab. in Amer. bor. Greenbush, in foliis Quercus rubræ, epiphylla. — A *M. Vaccinii* differt habitu formaque ascorum.

14. **Microsphæra Vaccinii** (Schw?) C. et Peck. Journ. Bot. Jan. 1872. — Peritheciis minutis, globosis; ascis 6-8, ovoideis, 6-8-sporis; appendicibus 10-20, hyalinis, perithecii diametro plus duplo longioribus. 46

Hab. in Amer. bor. West-Albany, in utraque pagina Vaccinii vacillantis, Oct. — An *Erys. Vaccinii* Schw. huc spectet nescio; huc tamen ducit cl. Farlow in herb. — « Asci (in exemplaribus Ellisianis) quandoque quaterni, 45-50 ≃ 20-25; sporidia sena 14-15 ≃ 8-9. Appendices perithecium quintuplo superantes, sursum pluries refracto-dichotomæ, apicibus obtusiusculis ».

15. **Microsphæra Berberidis** (DC.) Lév. in Ann. Sc. nat. 1851, tom. XV, p. 159, t. 10, f. 28. *Erysiphe Berberidis* DC. — Bifrons; mycelio arachnoideo, plerumque persistente; peritheciis sparsis vel gregariis, sphæroideis, minutis; ascis in singulo perithecio 6, ovoideo-rostratis, 6-8-sporis; appendicibus parcis (5-10), ramulis elongatis divaricatis apice obtusiusculis. 47

Hab. in Italia, Gallia, Germania, Anglia, Belgio, Fennia, in foliis Berberidis vulgaris, autumno.

16. **Microsphæra Friesii** Lév. Ann. Scienc. nat. 1851, XV, p. 156, t. 8, f. 20. — Mycelio arachnoideo fugaci vel persistente; peritheciis minutis globosis sparsis aut confertis; ascis 4, ovato-rostratis, 6-sporis; appendiculis parcis (8-10) perithecium æquantibus. 48

Hab. in foliis Betulæ albæ (*E. Betulæ* DC.) in Gallia, Rhamni catharticæ, Saxonia, Syringæ in Amer. bor., Betulæ verrucosæ in Italia et Austria.

17. **Microsphæra Euphorbiæ** B. et C., Berk. N. Am. Fungi n. 997. — Mycelio effuso; appendicibus longissimis furcatis, apicibus furcato-lobatis. 49

Hab. in Carolina inf. in foliis Euphorbiæ. — Appendices perithecium pluries excedentes, simpliciter bisve furcatæ, apicibus lobulatis, « irregulariter nodulosæ; asci 4 obovati, 54-60 ≃ 28-30; sporidia 6, hyalina 12-14 ≃ 8-9 ».

18. **Microsphæra penicillata** (Wallr.) Lév. in Ann. Sc. nat. 1851, t. XV, 50

p. 155, t. 8, f. 21. — *Alphitomorpha penicillata* Wallr. — Bifrons. Mycelio arachnoideo, effuso, evanido; peritheciis sparsis, sphæroidis, minutis; ascis in singulo perithecio 4, ovoideo-rostratis, 8-sporis; appendicibus 8-12 perithecium æquantibus.

Hab. in Europa tota et Amer. bor. in foliis Alni, Viburni Opuli, et acerifolii, Coryli rostratæ, Quercus nigræ, Loniceræ sempervirentis, Andromedæ, Betulæ pubescentis etc., autumno.

19. **Microsphæra Ehrenbergii** Lév. in Ann. Scienc. nat. 1851, tom. XV, p. 155, t. 8, f. 22. — Epiphylla. Mycelio subcontexto, orbiculari, persistente; peritheciis gregariis, sphæroideis, minutis; ascis in quovis perithecio 4, ovoideo-rostratis, 8-sporis; appendicibus gracilibus, uncinatis, circiter 20, perithecium æquantibus. 51

Hab. in Gallia, Belgio, Germania, Fennia etc. in foliis vivis Loniceræ tataricæ, autumno.

20. **Microsphæra Van-Bruntiana** Ger. New Fungi. Hedw. 1875 p. 189. Peck 28 Rep. on the St. Mus. — Amphigena; mycelio denso, albo, persistente; peritheciis globosis sparsis v. aggregatis; appendicibus 12-15, perithecium subæquantibus, plerumque furcatis, apicibus obtusis; ascis 8-sporis. 52

Hab. in Amer. bor. Poughkeepsie, Buffalo, Oneida etc. in foliis Sambuci canadensis. — Fabrica appendicum a ceteris speciebus recedit (Ger.). — Asci in speciminibus visis 4-spori, nec 8-spori (Peck).

21. **Microsphæra Ravenelii** Berk. North Amer. Fungi n. 998. — Rav. F. Am. n. 87. — Mycelio effuso albido; appendicibus pluries refracto-furcatis, « perithecio sesquilongioribus; ascis 4-5; sporidiis octonis 18-20 ≃ 10 ». 53

Hab. in Amer. bor. Aiken S. Car. in foliis Gleditschiæ.

22. **Microsphæra fulvofulcra** Cooke Calif. Fungi. in Grevill. V. p. 110. — Mycelio arachnoideo; peritheciis minutis, globosis, gregariis; appendicibus 8-12, ad basim brunneis, ad apicem hyalinis, compactis, 2-3 dichotomis. 54

Hab. in California in foliis Spirææ. — Appendices 8-12 perithecio duplo longiores, *M. Friesii* similes; sporidia ovoidea; asci nondum visi.

Species quarum diagnoses nondum mihi innotuerunt v. dubiæ.

23. **Microsphæra Platani** Howe (cit. in Peck. 28 Rep. on the St. Mus. New-York.). 55

Hab. in foliis Platani occidentalis, Yonkers, Amer. bor.

24. **Microsphæra Symphoricarpi** Howe (cit. in Peck. l. c.). 56

Hab. in foliis Symphoricarpi racemosæ, Yonkers, America bor.

25. **Microsphæra Menispermi** Howe (cit. in Peck. l. c.). 57

Hab. in foliis Menispermi canadensis, Yonkers, Amer. bor.

26. **Microsphæra densissima** (Schw.) Peck. 28 Rep. New-York. *Erysiphe densissima* Schw. Syn. Am. Bor. n. 2479. — Hyphasma densissimum tomentum filamentosum himantioideum, filis robustis, eleganter orbiculatim effiguratum sistit; a semi-uncia ad duas uncias effusum; filis candido-lacteis intertextis in ambitu subradiantibus; peritheciis globosis, nigro-fuscis, crebris. 58

Hab. in foliis Quercus, Bethlehem (Schw.), Saratoga, Amer. bor. (Peck.) — Distinctissima species, maculas definite orbiculares, compactas, albas formans, Peck. l. c.

ERYSIPHE Hedw., Lév. in Ann. Scienc. nat. 1851, t. XV, p. 161. (Etym. *Erysibe,* rubigo). — Perithecia superficialia, sphæroidea vel hemisphærica, undique clausa, primitus lutescentia, dein fusca, tandem atra, minuta s. minutissima, ceraceo-membranacea, mycelio arachnoideo, sæpe contexto, fugaci vel persistente imposita appendicibusque flocosis, simplicibus vel vage ramosis numquam dichotomis cum mycelio intertextis suffulta. Asci plures in quovis perithecio, ovoidei vel subovoidei, brevissime pedicellati. Paraphyses nullæ. Sporidia ovoidea, hyalina. Conidia ovato-oblonga *Oidii erysiphoidis* formas spectantia.

Clavis specierum.

Asci 2-spori	*Linkii*, *taurica*, *lamprocarpa*, *Galeopsidis*, *Duriæi*	Asci 4-8-spori	*communis*, *gigantasca*, *Martii*, *densa*
Asci 2-3-spori	*Montagnei*	Asci 8-spori	*graminis*, *vernalis*, *Ulmariæ*, *fuscata*, *Erodii*
Asci 3-4-spori	*tortilis*, *horridula*, *Umbelliferarum*, *Euphorbiæ*, *spadicea*	Asci 8-12-spori	*lanuginosa*

Species dubiæ v. minus notæ: *Rubi* : *Tuckeri* : *epixylon* : *epigæa* : *densa* : *Vaccinii* *Chelones* : *Liriodendri* : *Phlogis* : *quercina* : *Asterum* *Syringæ* : *Viburni* : *Quisquiliarum* : *Verbenæ* : *Ambrosiæ* : *Ceanothi* : *Gerardiæ* : *Necator*.

1. **Erysiphe Linkii** Lév. in Ann. Scienc. nat. 1851, XV, p. 161, t. 10, f. 29. — Amphigena; mycelio arachnoideo, fugaci vel persistente; peritheciis sparsis, emersis, sphæroideis, minutis; ascis 8–20 in singulo perithecio, pyriformibus, in pedicellum protractis bisporis; appendicibus cum mycelio intertextis, hyalinis. 59

Hab. in Italia, Gallia, Anglia, Germania, Sibiria Asiatica, in foliis Artemisiæ vulgaris, A. glaucæ, Tanaceti.

2. **Erysiphe taurica** Lév. Disp. meth. Erysiph. p. 53. — Mycelio floccoso, evanido vel persistente; peritheciis gregariis aut sparsis hemisphæricis, magnis, demum depressis; ascis 8–30 in pedicellum longiusculum productis bisporis; appendiculis cum mycelio intertextis, albis. 60

Hab. in Balaklava (Tauria) ad folia Zygophylli Fabaginis et Pegani Harmalæ. — Adsunt varietates in Dorychnio herbaceo (Tauria), Eryngio campes. (Alger), Inula viscosa (Tauria), Carlina corymbosa et lanata (Gallia) Cirsio eriophoro (prope Mimatem), Aplotaxi (Himalaya), Cerinthe majore (Tauria), Ptarmica vulgari (Sibiria Asiatica). — Perithecia majora, appendices hyalinæ, asci semper bispori (t. Thüm.).

3. **Erysiphe lamprocarpa** (Wallr.) Lév. in Ann. Sc. nat. 1851, XV, p. 163, t. 10, f. 31. *Alphitomorpha lamprocarpa* Wallr. — Amphigena; mycelio arachnoideo, effuso vel limitato, evanido vel persistente; haustoriis exappendiculatis, non lobulatis; peritheciis sparsis vel gregariis, sphæroideis, minutis; ascis in singulo perithecio 8–16, in pedicellum breve productis, bisporis; appendicibus cum mycelio intertextis. 61

Hab. in foliis Compositarum, Plantaginearum, Scrophulariacearum, Labiatarum, Campanulacearum, etc. in Britannia, Fennia, Gallia, Germania, Italia, Belgio, Sibiria Asiatica, Ægypto, Amer. boreali etc.

4 **Erysiphe Galeopsidis** DC. fr. 6. 108. De Bary Syst. Ueb. d. Erys. in Hedw. 1871, p. 68. — Amphigena; mycelio arachnoideo albo v. rufescente; peritheciis globulosis minutis, gregariis; appendicibus numerosis exilibus, brevibus, ramosis; haustoriis lobulatis; ascis copiosis (10–21), sporidiis..... ignotis (teste De Bary). 62

Hab. in foliis Stachydis, Lamii purpurei, Galeopsidis in tota fere Europa. — Differt ab *E. lamprocarpa* haustoriis lobulatis. Ad hanc speciem forte pertinet *E. nervisequia* West. Conf. Lamb. Myc. Belg.

5. **Erysiphe Duriæi** Lév. Disp. meth. Erysiph. p. 57. — Mycelio ara- 63
chnoideo, evanido; peritheciis magnis, sparsis, hemisphæricis, demum depressis; ascis 8 in pedicellum brevem protractis, bisporis; appendiculis subramosis.

Hab. in Gallia (Avignon), Algeria, Tauria, in foliis Phlomidis tuberosæ, Herbæ ventis, pungentis. — Ab *E. taurica* differt præcipue appendiculis coloratis.

6. **Erysiphe Montagnei** Lév. in Ann. Scienc. nat. 1851, XV, p. 169, 64
t. 41, fig. 36. — *Er. depressa* var. *Bardanæ* Wallr. — Amphigena v. hypophylla; mycelio arachnoideo, evanescente; peritheciis minutis, globosis, gregariis v. sparsis; appendicibus distinctis a mycelio; ascis, octonis ovoideo-subrostratis, 2–3-sporis, sporidiis ovoideis 30 ⩲ 28.

Hab. in Gallia, Belgio, Anglia, Italia, Germania, Amer. bor. etc. in foliis Lappæ, nec non Taraxaci et Xanthii (t. Cooke), Apocyni (t. Berk.). — Sec. De Bary est var. *E. lamprocarpæ.*

7. **Erysiphe tortilis** (Wallr.) Fr., Lév. in Ann. Scienc. nat. 1851, XV, 65
p. 170, f. 35. *E. Corni* Duby. — Hypophylla; mycelio arachnoideo, effuso, evanido; peritheciis minutis, globosis; appendicibus perithecio decuplo longioribus, coloratis a mycelio discretis; flexuosis; ascis quaternis, ovoideo-subrostratis, 4-sporis.

Hab. in Anglia, Belgio, Germania, Italia, Gallia, etc. in pag. inf. foliorum Corni sanguineæ, autumno.

8. **Erysiphe horridula** (Wallr.) Lév. in Ann. Sc. nat. 1851, tom. XV, 66
p. 170, t. 11, f. 37. *Alphitomorpha horridula* Wallr. — Amphigena; mycelio arachnoideo, interdum persistente; peritheciis sparsis vel confertis, sphæroideis, minutis; ascis in quovis perithecio 20–24, ovoideo-ellipsoideis, pedicellatis, 3–4-sporis; appendicibus brevibus, flexuosis, sursum flexis, firmulis.

Hab. in caulibus foliisque Asperuginis procumbentis, Onosmatis, Lycopsidis, Symphyti, Borraginis aliarumque Asperifoliarum in Anglia, Italia, Gallia, Sibiria, Belgio, Germania, Amer. bor. etc. — Sec. De Bary est var. *E. lamprocarpæ.*

9. **Erysiphe Umbelliferarum** (Lév.) De Bary Ueb. d. Erysiph. *E. Mar-* 67
tii Lév. var. E. — Haustoriis lobulatis; appendicibus crebris ramosis hyalinis v. basi fuscis, omnibus basalibus et mycelio intermixtis; ascis in quoque perithecio 4–8 (sæpius 6), 2–5-sporis, sæpius 3–4-sporis. — Conidia exacte cylindrica.

Hab. in foliis, caulibusque Angelicæ sylvestris, Heraclei etc. in tota Europa.

10. **Erysiphe Euporbiæ** Peck. 26 Rep. 80. — Mycelio tenui; perithe- 68
ciis minutis 70–80 μ. d. appendicibus paucis longis, flexuosis, coloratis; ascis late ovatis 3–4; sporidiis 3–4, crassis, 25 ≃ 16.

Hab. in Amer. bor. in foliis Euphorbiæ hypericifoliæ, Greenbush. — Perithecia plerumque in pag. superiore, mycelium vero amphigenum.

11. **Erysiphe spadicea** B. et C., Berk. North Amer. Fungi n. 989. — 69
Peritheciis spadiceis, appendicibus flexuosis perithecio triplo longioribus; sporidiis quaternis.

Hab. in foliis Xanthii in Carolina inf. Amer. bor.

12. **Erysiphe communis** (Wallr.) Fr. Summ. Veg. Scand. p. 406 pr. 70
p. *Alphitomorpha communis* Wallr. — Bifrons; mycelio effuso, arachnoideo, evanido vel persistente; haustoriis lobulatis; peritheciis sparsis vel gregariis sphæroideis minutis; ascis in singulo perithecio 4–8, ovoideo-sphæroideis, 4–8-sporis; appendicibus abbreviatis.

Hab. in tota Europa, America, Asia, in foliis Ranunculacearum, Leguminosarum, Geraniacearum, Scabiosacearum, Compositarum, Convolvulacearum, Polygonacearum, Scrophularicearum, Urticacearum, Onagrariarum, Valerianacearum etc. — Asci 110 ≃ 72–80. Sporidia ellipsoidea 40–42 ≃ 20–22. — *Erys. nitida* Wallr. in Delphinio mera var. videtur.

13. **Erysiphe gigantasca** Sorok. et Thüm. — Myc. univ. n. 645. — 71
Caules ambiens et plus minusve turgescens; mycelio subnullo; peritheciis globosis, congestis, grumosis, brunneis, mediis; appendicibus fuscis, longis, subnodosis, parce vel non divisis, illis *E. communis* proximis; ascis late ovoideis, vertice rotundato, basi subangustato, truncato, 108–120 ≃ 70, episporio lævi conformi, 4 μ. crass., vertice minime incrassato, hyalinis, 4–8-sporis; sporidiis ellipticis, utrinque rotundatis, 25 ≃ 16, hyalinis.

Hab. in Rossia, Kazan, in horto botanico ad caules vivos Euphorbiæ platyphyllæ et E. dulcis, æst. 1876 (Sorokin).

14. **Erysiphe densa** Berk. in Fl. n. Zel. II. 208. tab. CVI. fig. 16. — 72
Bifrons, mycelio denso arachnoideo persistente; peritheciis mediis, globosis, sparsis; appendiculis flexuosis candidis intertextis; ascis obovatis brevibus; sporidiis ellipticis suboctonis.

Hab. in foliis vivis Aristoteliæ Wairarapa, Nov. Zeland.

(Colenso). — Ab *Er. Martii*, cui affinis, differt mycelio densiori sublichenoideo. Appendices flexuosæ, sursum interdum nodulosæ.

15. **Erysiphe Martii** Lév. in Ann. Sc. nat. 1851, tom. XV, p. 166, t. 10, f. 34. — Amphigena. Mycelio arachnoideo, sæpissime evanido; ascis in quovis perithecio 4–8, sphæroideis, breviter pedicellatis, 4–8-sporis; appendicibus brevibus cum mycelio intertextis. 73

Hab. in foliis Cruciferarum, Leguminosarum, Galiorum, Umbelliferarum, Hypericacearum, Convolvulacearum, Urticacearum ec. in Britannia, Fennia, Sibiria asiatica, Gallia, Belgio, Italia, Amer. boreal. et. — Sec. De Bary non satis differt ab *Er. communi*.

16. **Erysiphe graminis** DC. Flor. Franc. VI, p. 106. — Bifrons, sæpius epiphylla; mycelio effuso, floccoso-lanuginoso, persistente; peritheciis, gregariis v. disseminatis, hemisphæricis, demum depressis semiimmersis, magnis; ascis in singulo perithecio 20–24, ovoideis, in pedicellum protractis, 8-sporis; appendicibus simplicibus cum mycelio intertextis. — Conidia moniliformi-concatenata, ovoidea, simplicia, facile dilabentia, albida vel hyalina *Oidium monilioides* Link sistentia. 74

Hab. in foliis Graminum variorum in Europa, Asia, America, Australia.

17. **Erysiphe vernalis** Karst. Myc. Fenn. II. 193. — Mycelio arachnoideo, evanido; peritheciis hemisphæricis mycelio emersis, fuscis, latit. circiter 0,1 mill.; ascis 8, brevissime pedicellatis, ovoideis vel oblongato-sphæroideis, 69 ≃ 39, octosporis sporidiis 8, sphæroideo-ellipsoideis, 16-18 ≃ 11-12; appendicibus, hyalinis, sat longis. 75

Hab. in ramulis Alni incanæ vivis prope Mustiala (Fennia) mense Majo 1866 (Karst.).

18. **Erysiphe Ulmariæ** Pers. in herb., Desm. 13 Not. 1846, p. 66. — Kickx Fl. crypt. Fl. I. 381. — Epi- rarius hypophylla; peritheciis minutissimis, globosis, nitidis; plerumque nervisequiis, ascis 8; sporidiis octonis ovoideis vel suboblongis mycelio albo, adpresso, radiato; appendicibus elongatis, ramosis, tortuosis, subfuscis, perithecio paulo longioribus. 76

Hab. in foliis Spirææ Ulmariæ in Gallia, Belgio, Germania, Italia etc. — Serius cl. Desm. ad *E. horridulæ* var. duxit; cl. Léveillé vero ad var. *E. Martii*.

19. **Erysiphe fuscata** B. et C. North Am. Fungi N. 991. — Tota fusca; peritheciis brunneis; appendicibus quandoque furcatis, fuligineis; sporidiis octonis. 77

Hab. in foliis Bidentis frondosæ et B. connatæ in Amer. bor. Pensylv., North Greenbush. Aut. — Sec. Peck ad *Sphærothecam* spectat.

20. **Erysiphe Erodii** Dur. et Mont. *Fl. Alg.*, 1, p. 567. Mont. Syllog. Crypt. N. 903. — Amphigena; mycelio nullo; peritheciis sphæricis minutis rigidis fusco-nigris, appendicibus simplicibus flexuosis albis; ascis pluribus, globosis, 8-sporis 80 *μ*. diam., sporidiis ovoideo-oblongis 20 *μ*. long. 78

Hab. in foliis Erodii moschati, Oran (Durieu). — Hæc ad *Sphærothecam Castagnei* var, A. Lév. spectat sec. Lév., sed asci plures, ergo non *Sphærotheca*.

21. **Erysiphe lanuginosa** Fuck. in Thuem. Myk. Not. von Griechenland (Bot. Zeit. 1871 n. 2). — Mycelio conidiophoro dense lanuginoso-tomentoso, candido, late effuso, caules foliaque tota occupante; conidiis oblongo-ovatis utrinque obtusis 32 ≃ 16; peritheciis sparsis villo immersis, planis, aterrimis, media magnitudine; ascis oblique stipitatis, oblongis, 84 ≃ 28, 8-12-sporis; sporidiis ovatis continuis, hyalinis, 12 ≃ 3. 79

Hab. Græcia, Kephyssus, in Dauco maximo (Heldreich).

Species inquirendæ.

22. **?Erysiphe Rubi** Fuck Symb. myc. p. 96. — Peritheciis ascophoris ignotis; mycelio tenui, arachnoideo, niveo; conidiis ovoideis, apice rotundatis, basi truncatis, 28 ≃ 17; ? peritheciis pycnidicis (*Cicinnobolus*) stipitatis, oblongo-ovoideis, flavis; stylosporis («spermatiis?») ovoideis, inæquilateralibus, hyalinis, 8 ≃ 4. 80

Hab. in utraque pag. foliorum Rubi fruticosi in Germania, Gallia, Lusitania. — Perithecia s. d. pycnidica forte mera parasitica nec metagenetica sunt.

23. **?Erysiphe Tuckeri** Berk., Kickx Fl. crypt. Fl. I. 382. — Peritheciis ascophoris ignotis; mycelio effuso arachnoideo-pruinoso, albicante, conidiis ovoideis v. ellipsoideis, moniliformi-connexis (*Oidium Tuckeri* Berk.);? peritheciis pycnidicis (*Cicinnobolus Cesatii* de Bary, *Endogonium Vitis* Crocq.) minutissimis ovoideis subpedicellatis, v. globulosis et subsessilibus; stylosporis («spermatiis?») ovoideis, obtusis, rectis curvulisve. 81

Hab. in foliis, fructibusque Vitis viniferæ, ubicumque hæc excolitur v. sponte nascitur. — An perithecia pycnidica Erysiphes proles v. ejusdem mere parasitica sint dubium manet: immo cl. de Bary hanc postremam opinionem magis probabilem censet. Peri-

thecia ascophora, ubi innotuerint, speciem inter Uncinulas facile locabunt; re vera Oidium *Uncinulæ spiralis* in Vitibus americanis proveniens ab *Oidio Tuckeri* vix differt conidiis paulo minoribus.

24. **Erysiphe Chelones** Schwein. Syn. Am. bor. n. 2490, Berk. North Am. Fungi in Grevillea — Hyphasma crassiusculum albidum, demum pallidum orbiculatim effiguratum, floccis radiantibus, subpulverulentis, peritheciis nigris centro aggregatis. 82

Hab. vulgatissima in foliis Chelones Bethlehem; in Pensylvania, Michener.

25. **Erysiphe Liriodendri** Schwein. Syn. Am. bor. n. 2480, Peck. 30 Rep. on the St. Mus. New-York. — Hyphasma densum lacteum, filis intertextis radiantibus maculas efficiens minores, vix $^1/_4$ unciales, orbiculatim aut effiguratis effusas; peritheciis aggregatis fusco-nigris in centro, deciduis. 83

Hab. in foliis Liriodendri Tulipiferæ, Amer. bor. Bethlehem, Oneida.

26. **Erysiphe Phlogis** Schwein. Syn. Am. bor. n. 2487 Berk. North Amer. Fungi in Grevill. — Hyphasma densum ex albido cinerascens, occupans fere totum folium, pagina superiori; peritheciis fuligineo-fuscis, demum atris, minutis, crebris, primum globosis, demum pezizoideis, corrugatis aut rugulosis. 84

Hab. in foliis Phlogis, Bethlehem, Massachusetts, Am. bor.

27. **Erysiphe Vaccinii** Schw. Syn. Am. bor. n. 2491. Peck. in Rep. on the t. Mus. New-York. — Hyphasma densum ex albido cinerascens, occupans fere totum folium, pagina superiori; peritheciis fuligineo-fuscis, demum atris, minutis, crebris, primum globosis, demum pezizoideis, corrugatis aut rugulosis. 85

Hab. in foliis Vaccinii pensylvanici, Berks County, Pensylv., Epigææ repentis, New Baltimore, Sandlake (Amer. bor.) Conf. *Microsphæra Vaccinii*. Teste Schwein. distinctissima species.

28. **Erysiphe Viburni** Schw. Syn. Am. bor. n. 2483. — Hyphasma effusum, maculas efficiens majores aut minores lacteas, floccis crassiusculis intricatis, subeffiguratum. Peritheciis luteis, demum fuscis aut nigris, sphæricis et collapsis, superficie subrugosis. 86

Hab. in foliis Viburni prunifolii, Bethlehem, Amer. bor. — Cfr. *Microsph. Hedwigii*.

29. **Erysiphe Syringæ** Schw. Syn. Am. bor. n. 2488. — Hyphasma tenuissimum candidum laxe et indeterminatum, effusum, floccis vix distinguendis singulis. Peritheciis sparsis, minutissimis, fuscis et nigris. 87

Hab. in foliis Syringæ et Cydoniæ Hortorum, Bethlehem, Am. bor. — Conferatur *Microsph. Friesii.*

30. **Erysiphe quercina** Schw. Syn. Amer. bor. n. 2492. — Hyphasma occupans fere totum folium, expansum, candicans, tenuissimum, floccis vix distinctis. Peritheciis raris, minutissimis, sparsis nigris; præsertim loco distinguenda species. 88

Hab. sero autumno non rara in foliis quercinis præsertim Bannisteris, Pennsylvania (Amer. bor.).

31. **Erysiphe necator** Schw. Syn. Amer. bor. n. 2495. — Hyphasma tenuissimum albidum, floccis valde tenuibus, orbiculatum, non constringens. Peritheciis minutissimis, raris, fusco-nigris, globosis. Ubi omnino evoluta, etiam hæc species destruit uvas. 89

Hab. multo rarius in Uvis Vitis Labruscæ varietatibus cultis in vineis nostris, Amer. bor.

32. **Erysiphe Ceanothi** Schw. Syn. Amer. bor. n. 2482. — Hyphasma candidum, filis vix lente distinguendis, farinæ ad instar indeterminatim in foliis effusum. Peritheciis minutis immersis, nigro-nitidis. 90

Hab. in foliis Ceanothi pagina superiori frequens, autumno, Bethlehem, Am. bor.

33. **Erysiphe Gerardiæ** Schw. Syn. Am. bor. n. 2481. — Hyphasma e sulphureo-olivaceum, filis tenuissimis efficit maculas irregulariter effusas minores, interdum subeffiguratas, confluentes. Peritheciis, absque capillitio gregaria in hyphasmate globosa, demum pezizoidea nigro-fusca. Floccis hyphasmatis prima juventute epidermide folii tectis, demum nudis. 91

Hab. in foliis Gerardiæ quercifoliæ rara sed distinctissima. Salem, Amer. bor.

34. **Erysiphe Ambrosiæ** Schw. Syn. Am. bor. n. 2484. — Hyphasma candidum, tenuissimis floccis vix distinguendis, indeterminatim latius effusum in toto folio. Peritheciis sphæricis, fuscis nigrisque, raris, capillitio majoribus. 92

Hab. in foliis Ambrosiarum, autumno, vulgatissima, Bethlehem, Amer. bor.

35. **Erysiphe Verbenæ** Schw. Syn. Amer. bor. n. 2485. — Hyphasma lenissimum indeterminatim effusum, maculas tamen efformans confluentes et subdeterminatas candidas. Floccis intertextis brevibus. Peritheciis destitutis capillitio, fuscis nec nigris, rugosis, deciduis. 93

Hab. in foliis Verbenæ urticifoliæ vulgatissima sero autumno, Bethlehem, Amer. bor.

36. **Erysiphe Quisquiliarum** Schw. Syn. Amer. bor. n. 2486. — Hyphasma indeterminatim effusum, albo-virens, floccis intricatis. Capillitio parco. Peritheciis crebris, rugosis, nigris, globosis. 94

Hab. super folia caulesque variarum herbarum dejectarum inter quisquilias horti, Bethlehem, Amer. bor.

37. **Erysiphe Asterum** Schw. Syn. Amer. bor. n. 2489. — Hyphasma tenue, album, laxum, indeterminatim effusum. Peritheciis suffultis brevi capillitio, nigris. 95

Hab. frequens in foliis languescentibus Asterum, præsertim Asteris paniculati, Bethlehem, Amer. bor.

Species prorsus dubiæ.

38. **Erysiphe epixylon** Schlecht. Fl. Ber. p. 170. — Floccis tenerrimis hyalinis albis, peritheciis sessilibus sphæricis, ascis pluribus. 96

Hab. in ramis decorticatis Quercus, Berolini. — Ad triviales accedit. Flocci arachnoidei, late serpentes, laxi, dichotomi, haud intricati. Perithecia pro more demum depressa, ascis numerosis.

39. **Erysiphe epigæea** (Wallr.) Link, Fr. S. M. III. 236. — Floccis laxis candidis, peritheciis sessilibus maximis, hemisphæricis basi dilatatis, peridiolo (asco?) solitario. — Wallr. Fl. cr. pag. 761, n. 3670, sub Alphitomorpha. 97

Hab. in terra ad semitas, in ericetis, radicibus etc. in Germania. — Initio thallus tenerrimus albus multis granulis inspersus est. Tum flocci increscunt, granulis destituuntur, hyalini fiunt sericeo splendentes nitore, utriculares, laxe incumbentes nec intricati. Peridiolum gelatinosum, album peridium primo replens, tum collabens, et cavitatem relinquens. Wallr. et Link. Spec. I. p. 105. Hæc sola a me non visa species (Fr. l. c.).

ERYSIPHELLA Peck. in XXVIII. Rep. of New-York. State Museum pag. 63. tom. II. fig. 1-2. — Perithecia superficialia, globosa, astoma, erysiphoidea, hypulis mycelicis cincta. — Appendices definitæ nullæ; asci octospori, oblongi; sporidia continua, hyalina. — Genus a *Perisporio* Fr. sporidiis continuis hyalinis ab *Erysiphe* Lév. etc. defectu appendicum genuinarum differt.

1. **Erysiphella aggregata** Peck. l. c. Myc. Univ. N. 753, 754, *Erysiphe aggregata* Farl. Herb. — Mycelio arachnoideo, effuso, albido; peritheciis abundantibus, confertis, subglobosis, glabris, badiis vel nigris; ascis plerumque 10-12, oblongo-ovatis vel etiam subclavatis; sporidiis 8, late ellipticis, 20-22 = 12-15, hyalinis. — 98

Hab. in America septentr.: Albany, North Greenbush, ad amenta feminea Alni serrulatæ Ait. quæ interdum omnino obducit. Vere 1875. (C. H. Peck.).

SACCARDIA Cooke Grevill. 1878. VII. p. 49. (Genus mihi humanissime dicatum ab ill. M. C. Cooke). — Mycelium arachnoideum, plerumque evanidum; perithecia globosa; ascis globoso-ovatis, 8-sporis; sporidiis ellipticis, muriformi-polyblastis; appendices nullæ, v. cum mycelio intertextæ.

1. **Saccardia quercina.** Cooke l. c. — Hypophylla; mycelio evanido; 99
peritheciis gregariis vel sparsis; ascis globosis, octosporis; sporidiis ellipticis, hyalinis, merenchymaticis, 20 ≃ 10.

Hab. in foliis Quercus virentis in Darien, Georgia (Amer. boreal.) ubi legit Ravenel.

2. **Saccardia Martini** Ell. et Sacc. Michel. I. 373. — Peritheciis in 100
subiculo mucedineo ex hyphis tortuosis mox evanescentibus contexto, albo, laxe gregariis, superficialibus, globoso-depressis denique umbilicatis, astomis, nigricantibus, contextu minute angulosо-parenchymatico, fuligineo; ascis fasciculatis, oblongo-clavatis, brevissime stipitatis, apice rotundatis, 65–70 ≃ 25–28, aparaphysatis, octosporis; sporidiis di-tristichis, oblongo-cylindraceis, sæpius curvulis, utrinque rotundatis, 6-7-septatis, septulisque 2–4 longitudinalibus divisis, ad septa leniter constrictis, granulosis, hyalinis.

Hab. in pagina superiore foliorum languentium Quercus laurifoliæ, in Florida, *U. S. A.*, legit Doct. S. Martin, comm. J. B. Ellis.

Subfam. 2. **Perisporieæ** Sacc.

Biogenæ v. saprogenæ. Perithecia globosa, pyriformia v. lenticularia, astoma, subiculo mucedineo v. dematieo plerumque insidentia; *Oidium erysiphoides* nullum.

Clavis analytica generum

1. **Hyalosporæ.** Sporidia globosa v. oblonga, continua, hyalina v. flavida.

† Perithecia læte colorata, flava v. rufa; sporidia hyalina v. fusca.

Eurotium: perithecia subiculo *Aspergilli* insidentia; asci octospori.

? Myriococcum; perithecia rufa ....

Pisomyxa: perithecia subiculo dematieo insidentia; asci polyspori.

†† Perithecia nigra, v. atra; sporidia hyalina.

Lasiobotrys: perithecia, botryoso-aggregata, stromateque cupulari excepta.

Apiosporium: perithecia subglobosa, gregaria, subiculo torulaceo sæpe inserta; asci polyspori.

Meliolopsis (Sect. *Meliolæ*): perithecia globosa subiculo radioso dematieo; asci 2-8-spori.

Asterula (Sect. *Asterinæ*): perithecia applanata subiculo radioso dematieo; asci 4-8-spori.

†††† Perithecia spadicea dein nigra; sporidia flavida.

Anixia: perithecia subglobosa, mycelio evanescente; asci 8-spori.

2. **Phæosporæ.** Sporidia globosa v. oblonga, continua, fusca.

† Asci globosi in hyphis ramosis. capitato-acrogeni.

Cephalotheca. Perithecia initio pilosella, non appendiculata.

†† Asci sessiles v. stipite simplici instructi.

Ascotricha. Perithecia appendicibus pluries furcatis basi cincta, globosa.

Magnusia. Perithecia appendicibus apice circinatis basi cincta, globosa.

Orbicula. Perithecia exappendiculata, thallicola, glabra, globosa.

Thielavia. Perithecia exappendiculata, rhizophila, glabra globosa.

Chætomidium. Perithecia exappendiculata sed undique setosa v. pilosa, globosa.

Asteronia (Sect. *Asterinæ*). Perithecia exappendiculata, sed subiculo radioso innata, globosa, lenticularia.

3. **Didymosporæ.** Sporidia didyma hyalina v. fusca.

Asterina (Euasterina). Perithecia lenticularia, subiculo radioso innata; sporidia fusca.

Asterella (Sect. *Asterinæ*). Ut Asterina, sed sporidia hyalina v. subhyalina.

Dimerosporium, Perithecia globulosa, subiculo dematieo insidentia; sporidia hyalina v. fuscidula.

Zopfia. Perithecia subiculo nullo v. obsoleto; sporidia grandia, fusca.

4. **Phragmosporæ.** Sporidia oblonga, 2-pluriseptata, hyalina v. fusca.

Perisporium. Perithecia globosa, subiculo obsoleto; sporidia 3-septata, fusca, loculis secedentibus.

Meliola (Eumeliola). Perithecia globosa, subiculo radioso; sporidia 2-5-septata, fusca, non fatiscentia.

Asteridium (Sect. *Asterinæ*). Perithecia lenticularia, subiculo radioso; sporidia 2-5-septata, non fatiscentia, sæpius hyalina.

5. **Dictyosporæ.** Sporidia ovato-oblonga, clathrata, fusca v. hyalina.

Cookella. Perithecia biogena, applanata; sporidia fusca.

Pleomeliola (Sect. *Meliolæ*). Perithecia biogena, globosa; sporidia fuscidula.

Phymatosphæra. Perithecia saprogena, subglobosa, intus cellulis ascophoris fœta; sporidia hyalina.

APPENDIX

Cystotheca. Perithecia subiculo dematieo inserta, monoasca.

EUROTIUM Link. Sp. plant. VI. 1. p. 79. (Etym. *evros*, mucor). — Perithecia superficialia, globosa, astoma, membranacea, glabra e sulphureo lateritia v. fuscescentia, e mycelio conidiophoro (*Asper-*

gilli) oriunda. Asci typice sphæroidei, octospori, aparaphysati. Sporidia continua, subglobosa, typice hyalina.

1. **Eurotium herbariorum** (Wigg.) Link. Spec. Plant. I, p. 79. *Mucor herbariorum* Wigg. (1780). — Peritheciis filamentis repentibus, intricatis, ramosis, primo hyalino-albis suffultis, sphæroideis, sulphureis, latit. 75–90 μ.; ascis sphæroideis vel subsphæroideis, diam. 12–15 μ., sporidiis octonis conglobatis, hyalinis lentiformibus, biconvexis, margine sulco lato, acute marginato percursis, 8–10 μ. diam. maj., margine radiatim striolatis, diam. 5 μ.; paraphysibus nullis. — Status conidicus est *Aspergillus glaucus* Link. 101

   Hab. in plantis humidulis in herbariis, in lignis, fructibus, quisquiliis putridis in tota Europa, Amer. bor. et austr., Africa, Australia, Asia frequens.

2. **Eurotium repens** de Bary Beitr. z. Morph. u. Phys. d. Pilze et in Hedw. 1871, p. 52. — Mycelio superficiali laxe lateque repente; conidiis globosis v. ovalibus, tenuissime verruculosis, 7–8,5 μ. d.; peritheciis minutis sulphureis; sporidiis hyalinis lentiformibus crasse biconvexis, margine sulco minime profundo, sæpe ægre conspicuo obtusissime marginato percursis, 4–5,6 μ. diam. maj., levissimis. 102

   Hab. in corporibus organicis variis putrescentibus in Germania, Italia etc.

   « *Obs.* Asci ovoidei 15 ≃ 12, 8-spori; sporidia e fronte subglobosa, 5 ≃ 6, marginata, lævia, hyalina. In *eodem* folio populeo examinavi gregem peritheciorum amœne sulphureorum, conspicue minorum: ascis subglobosis, 10 ≃ 11, sporidiis subovoideis 3–4 ≃ $2^1/_2$ minutissime guttulatis, lævibus. An forma, an species diversa? An status immaturus? Sed si status immaturus quomodo asci et sporidia perfecte evoluta? [Michelia] ».

3. **Eurotium candidum** Speg. Fungi Arg. IV. n. 109. — Peritheciis sæpius glomerulatim aggregatis, minutissimis 70–80 μ. diam., glaberrimis, levissimis, candidis, contextu cellulis polyedricis, majusculis 20–30 μ. diam. composito, hyalino; ascis, globosis 14–18 μ. diam., octosporis, cito diffluentibus; sporidiis globosis 6–8 μ. diam. e mutua pressione sæpe angulosis, crassiuscule tunicatis, muriculato-reticulatis, hyalinis. Status conidicus est *Aspergillus cinereus* Speg. Fung. Arg. pug. III, n. 140. 103

   Hab. ad folia exsiccata loco udo diu servata in Universitate bonariensi, Oct. 1880 (Amer. austr.).

4. **Eurotium lateritium** Mont. Syll. Crypt. n. 918, Cent. VI, n. 45, in Ann., 3, XI, p. 54. — Peritheciis celluloso-membranaceis, luteis 104

dein ochraceis, floccis dense contextis lanæformibus luteo-aurantiacis immersis; ascis 8-sporis sporidiisque globosis, hyalinis.

Hab. in pane castrensi corrupto, apud Parisios (Rayer.) « An var. *E. herbariorum?* ».

5. **Eurotium Coriorum** Wallr. Fl. crypt. Germ. 331, n. 2076. — Hyphis parce intertextis brevibus tortuosis dein cinnamomeis, peritheciis mollibus sphæricis minutissimis nudis, primum sparsis, læte citrinis, dein luteis conglomeratis, hypham nonnisi obvolventibus. 105

Hab. ad calceamentorum coria in humectis reposita passim in Germania et Italia. — Perithecia *Microsphæras* æquantia. « Perithecia minutissima globosa citrina. Asci subglobosi, octospori; sporidiis e fronte subsphæricis, $4^1/_2$–$5^1/_2$ diam., lævibus, dilutissime flavidis, hyalinis. Vix ab *E. repente* de Bary diversum [Michelia] ».

6. **Eurotium epixylon** Kunze et Schm. D. Schw. n. 83, Wallr. Fl. crypt. n. 2078. — Hyphis congestis dense contextis, pulvinato-macularibus, primum flaventibus dein fusco-rufescentibus, peritheciis citrinis parvis confertis, hyphasma demum obliterantibus. 106

Hab. ad ligna cæsa in locis suffocatis reposta frequens, in Germania et Italia. — « An var. *E. herbariorum?* ».

7. **Eurotium fructigenum** Mart., Wallr. Fl. crypt. n. 2077. — Hyphis tenuissimis testaceo-fuscescentibus, peritheciis minimis, ellipticis, luteis. — Mart. Erl. 369. Link. spec. I. 80. 107

Hab. ad fructus putridos Fuchsiæ in Germania, Erlangen (Martius), ad fructus Cerasi saccharo et spiritu vini incoctos et diu servatos Romæ (Fiorini-Mazzanti, Montagne Syll. Crypt.). Ab *E. herbariorum* colore et minutie maxime differt. Mont. l. c.

8. **Eurotium pulcherrimum** Wint. in Hans. Fungi fim. dan. p. 104. — Peritheciis globulosis, 144–190 μ. diam., fusco-virentibus; ascis sphæricis, octosporis, 10–14 μ. diam.; sporidiis ellipsoideis 5–6 = 4–5. 108

Hab. in fimo, in Saxonia.

9. **Eurotium stercorarium** Ch. Hans. Fungi fim. dan. p. 104. — Peritheciis globulosis, basidiis, reticulato-contextis, 260 μ. diam.; ascis fere globosis; sporidiis inæqualiter globulosis 3–4.5 μ. diam. 109

Hab. in fimo, in Dania.

Species quoad genus dubiæ v. mihi ignotæ

10. **Eurotium chilense** Mont. Syll. crypt. n. 919, Fl. Chil., VII, p. 476. Hypophyllum; perithecio sphærico vitellino, floccis brevissimis radiantibus basi cincto; sporis liberis (?) globosis cum gelatina diffluentibus. 110

Hab. in foliis Ballotæ Miersii, Quintero in Chile (Bertero).

11. **Eurotium? Bonariense** Speg. fung. Arg. I. 177. — Peritheciis 111
sparsis vel 3–5 gregariis, sphæricis, astomis, luteo-sulphureis, 120–200 μ. diam., lævibus undique laxissime hyphis rectis albo-flavescentibus, prælongis 250–350 ≃ 5–10, vestitis; contextu tenuissime membranaceo, vivide sulphureo, imperspicue parenchymatico; hyphis microscopio inspectis basi dilute fulvescentibus apice recto, obtuso rotundato, hyalino, lævibus; ascis..... (non vidi) cito diffluentibus; sporidiis confertis, numerosissimis, globosis hyalinis, 3–4 μ. diam.

Hab. in foraminibus interioribus a coleopteris fimicolis peractis in fimo vaccino al Bagnado de S. José de Flores, 6 Mart. 1880 prope Buenos-Ayres (Amer. austr.). Species pulcherrima, a genere *Eurotio* nonnihil recedens.

12. **Eurotium fuscum** Preuss Fungi Hoyersw. Linnæa 1852, p. 78. 112
Mycelio evoluto e floccis dense contextis, stipitiformibus, et in singulos abeuntibus, repentibus; peritheciis minutis gregariis, globosis, basi applanatis, fuscis; pulpa subalba; sporis minutissimis globosis fuscis.

Hab. in ramulis Robiniæ Pseudacaciæ, Hoyerswerda, Lusatia (Germ.).

13. **Eurotium fulvescens** Cooke Grev. VIII. 11. — *Badhamia ful-* 113
vescens Cooke Grev. IV. 69. — Peritheciis subglobosis, sparsis, v. 3–6 aggregatis, subochraceis, basi circumcirca albo-pubescentibus; ascis minutis globosis, floccis tenuibus capitato-insertis; sporidiis pallide fuscis, minutis, ovoideis, 7,5 μ. diam.

Hab. in tela vetusta near Perth N. B. (Britannia).

14. **Eurotium Oryzæ** Ahlburg in Korschelt Ueber Sake (Dingl. Polyt. 114
Journ. 1878). — Peritheciis conspicue flavis mycelio floccoso albo, septato insidentibus; ascis copiosis; sporidiis non concatenatis(?).

Hab. in caryopsidibus fermentescentibus Oryzæ, Germania.

15. **Eurotium insigne** Wint. Hedw. 1873, p. 146 (nomen), Fungi Eur. 115
n. 1732 (non vidi).

Hab. in fimo, in Borussia.

16. **Eurotium diplocystis** B. et Br. Fungi of Ceylon n. 1180. — Ir- 116
regulare, subglobosum vel elongatum, flavum, demum aurantiacum; ascis globosis pedunculatis e floccis decumbentibus oriundis; sporidiis octonis ellipticis.

Hab. in Ceylon. — Asci mox difflui, stipitibus longis et flexuosis ex hyphis decumbentibus ramosisque oriundis. Forte novum genus.

17. **Eurotium creatinum** Nyl. An. myc. in Fl. fenn. p. 126 (non vidi). 117

Hab. in carne cocta. Perithecia nigrescentia. Cfr. De Seynes Nouv. cas de parasit. d'un Aspergillus p. 4.

18. **Eurotium obliteratum** Schw. Syn. Amer. bor. n. 2725. — Thallo 118
obliterato, nullo. Peritheciis magnis citrinis.

Hab. in herbis male exsiccatis in Herbariis Schweinitzii, in Am. boreal.

APPENDIX

Generi *Eurotio* peraffine, etsi ascigerum nondum repertum, est sequens genus.

MYRIOCOCCUM Fr. Syst. Myc. II. 304 (Etym. *myrios* et *coccos* h. e. sphærulæ copiosissimæ). — Perithecia globosa, membranacea, astoma, solidiuscula, gregaria e subiculo mucedineo intertexto oriunda. Nucleus.....

1. **Myriococcum præcox** Fr. Syst. Mycol. II. 304. Corda Icon. fung. 119
V. p. 56, t. III., fig. 39.

Hab. In foliis dejectis fragmentis ligneis et corticibus putrescentibus in Germania, Italia, Scandinavia, Algeria etc. — «Perithecia in subiculo mucedineo albo effuso dense gregaria, sphæroidea, diam. 50–70 micr., nitida, astoma, rufa; contextu distincte parenchymatico purpurascente, cellulis polyædricis 6–8 micr. diam. Corpuscula inclusa globulosa 6–10 micr. diam. hyalina, potius plasmatis guttulæ videntur. Etsi asci nondum innotuerint eurotiaceum genus videtur [Michelia]».

PISOMYXA Corda Icon. fung. I, p. 23 (Etym. *pison*, pisum, *myxa*, mucus). — Perithecia membranacea, globulosa, colorata, apice denique rimulosa, mycelio radiato dematieo innata. Asci (globuli Corda) ovati, polyspori, liberi(?). Sporidia minutissima globulosa, continua fusca. — Species foliicola.

1. **Pisomyxa rhacodioides** Corda Icon. I, p. 23. t. VI. fig. 292. — My- 120
celio atro, tomentoso; peritheciis globosis, aureis, diaphanis, floccis radiantibus dichotomis, septatis, atris suffultis; ascis (seu globulis sporarum) 3-4, gelatinosis, ovatis, aureis; sporidiis minutissimis, globosis, fuscis; pseudothallo membranaceo tenuissimo friabili, diaphano, luteo.

Hab. in foliis vivis perennibus arborum tropicarum in Brasilia. — Perithecia vertice denique rimulosa.

LASIOBOTRYS Kunze Myc. Heft. 2. p. 88 (Etym. *lasios*, pilosus et

botrys racemus, h. e. sphærulæ aggregatæ setigeræ). — Perithecia subsuperficialia, globosa, astoma, nigra minutissima, plura botryose-aggregata, cupulàque stromaticà margine setigerà recepta. Asci cylindracei, octospori. Sporidia oblonga, continua, hyalina.

1. **Lasiobotrys Loniceræ** Kze in Mycol. Heft. II. 88. 121

Hab. in utraque pagina foliorum languidorum Loniceræ nigræ, Periclymeni, Xylostei, cæruleæ, tataricæ, Pallasii in Britannia, Gallia, Italia, Algeria, Belgio, Germania, Sibiria. « *Obs.* Fungillus structura valde peculiaris et (mirum!) a nullo, quem sciam, auctore, excepto forte cl. Desmaziero in Flor. Alger. 569, exacte descriptus vel delineatus. In foliis gignuntur hinc inde gregatim cupulæ stromaticæ aterrimæ, mycelio solo penetrante, superficiales, 150–180 μ. d. celluloso-contextæ, duriusculæ, margine setulis copiosis, septatis olivaceo-fuligineis, 60–150 ≃ 4, patulis ciliatæ. In his cupulis nidulantur perithecia numerosa, botryoso-aggregata, perfecte sphærica, astoma, 50 μ. diam., contextu distinctissime parenchymatico, membranaceo, fuligineo; asci, qui insunt, fasciculati, cylindraceo-clavati, deorsum attenuati, 40–50 ≃ 10, octospori, aparaphysati; sporidiis breve fusoideis, 8–10 ≃ 4–5, hyalinis. Cupulæ stromaticæ, peritheciis facile secessis, perithecium unicum collapso-cupulatum mentiuntur, vel peritheciis farctæ simile nondum collapsum æmulantur. Icones et descriptiones auctorum. e. g. Grevillei, Wallrothii, Friesii, Cordæ etc. talem fabricam fictitiam ostendunt, perithecia vera haud demonstrant vel pro ascis habent [Michelia] ».

APIOSPORIUM Kunze Myc. Heft. I. p. 8. (Etym. *apion*, pyrum, *sporos*, proles). — Perithecia superficialia, minutissima, globosa v. pyriformia, astoma, membranacea v. carbonacea, subiculo conidiophoro dematiaceo insidentia. Asci polyspori, aparaphysati. Sporidia globosa v. oblonga, continua, hyalina. St. conidioph. sistit *Fumaginis*, *Torulæ* etc. species. — Mihi male cognitum genus.

Species genuinæ.

1. **Apiosporium pinophilum** Fuk. Symb. Myc. 87. — Peritheciis præ- 122
cipue in foliorum superficie, sparsis, punctiformibus, planis convexisque, orbicularibus, rugulosis, atris; ascis globosis, magnis, multisporis: sporidiis minutissimis, ovato-cylindraceis, hyalinis. — St. conidioph., sec. Fuck., est *Antennaria pinophila* Nees. (Conf. ad *Capnodia*).

Hab. in ramis foliisque Abietis pectinatæ in Germania, Belgio, etc. Autumno.

2. **Apiosporium profusum** Wallr. Fl. crypt. p. 262. Fuck. Symb. Myc. 123
p. 88. — Peritheciis gregariis, structura grosse cellulosa, fusca, globosis oblongisve irregularibusque, aterrimis, minutissimis, basi conidiis concatenatis, oblongis, fuscis, emergentibus; ascis magnis, globosis, multisporis; sporidiis ovato-globosis, nucleatis, dilutissime flavis, 3 μ. diam.

Hab. in cortice Populi nigræ et Quercus, rarius, Œstrich, Rhenogovia, et in Thuringia — Maculas nigras granulosas formant.

3. **Apiosporium quercicolum** Fuck. Symb. Myc. 87. — Mycelio conidio- 124
phoro *Fumaginem* sistente; conidiis cum hyphis articulatis in foliorum pagina superiori, oblongo-ovatis irregularibusve, 2-3-septatis, subopacis, 48 ≃ 24; demum peritheciis ascigeris, in superficie ortis, globosis, fuscis, 48 μ. diam.; ascis globosis, multisporis (?); sporidiis globosis, biguttulatis, hyalinis, 6 μ. diametro.

Hab. in foliis vivis Quercus in Rhenogovia, aut.

4. **Apiosporium stygium** Wallr. Fl. crypt. p. 862 (?), Fuck. Symb. Myc. 125
p. 88. — Peritheciorum acervulis densis, minutis, 1 ½ mill. diametr., aterrimis; peritheciis globosis oblongisve, lævibus, atris, 44 μ. diam.; ascis distinctis, majusculis, globoso-ovatis, sessilibus, polysporis; sporidiis globosis, minutis, dilutissime flavis.

Hab. in ligno putrescente Quercus, Juglandis etc. in Germania, Gallia, Italia.

5. **Apiosporium Fumago** Fuck, Symb. myc. p. 87. — Hyphis repen- 126
tibus, ramosis, moniliformibus, conidiis in catenulas seriatis, demum solutis pilorum simplicium, erectorum, acuminatorum, fuscorum superficiem totam tegentibus, globosis, 8 μ. diam., maturis olivaceis; pilis 144 μ. long. (Fuck. l. c. t. II. fig. 37). Peritheciis ascophoris punctiformibus, demum confluentibus, orbicularibus, planis, subtilissime rugulosis, atris; ascis globosis, 16 μ. diam., multisporis; sporidiis minutis, globosis, hyalinis.

Hab. in foliis adhuc pendulis Fagi sylvaticæ (et Ilicis) crustas fuscas amplas formans, in Jura (Helvetia) ubi legit Morthier.

6. **Apiosporium tremulicolum** Fuck. Symb. p. 88. — Peritheciis in rá- 127
mulis præcipue aridis ortis, gregariis, atris, conicis, minutis; ascis globosis, 8(—16?) sporis; sporidiis globosis seu angulato-globosis, uninucleatis, hyalinis, 8-10 μ. diam. — Mycelio conidiophoro præprimis in foliorum vivorum pagina superiori nascente, maculas nigras, tenues, plerumque circumscriptas exhibente; hyphis repen-

tibus, articulatis, junioribus stellatis, (conidiis *Asterosporii Hoffmanni* non absimilibus), primo hyalinis, demum fuscis; conidiis e 2–4 cellulis fuscis connatis, majusculis.

Hab. in foliis ramulisque Populi tremulæ, Eberbach, Rhenogovia.

7. **Apiosporium Rhododendri** Fuck. Symb. Myc. p. 87. — Mycelio conidiophoro *Torulam Rhododendri* Kze sistente, præcipue in foliis. — Peritheciis ascigeris in ramulis ortis, minutis, deplanatis, atris; ascis polysporis; sporidiis subglobosis, nucleatis, hyalinis, 8 μ. diam. 128

Hab. in foliis ramulisque Rhododendri ferruginei in Alpibus Italiæ et Germaniæ.

8. **Apiosporium microscopicum** Karst. Symb. ad Myc. Fenn. 1879, p. 42. — Peritheciis sparsis, cuticulæ innatis, sphæroideis, structura subgrosse cellulosa, fusca (sub microscopio), atris, lævibus diam. 30–40 μ.; ascis pluribus insimul, primitus subsphæroideis, dein obovoideo-oblongatis, utrinque attenuatis, ut plurimum curvulis sessilibus, polysporis; sporidiis angulato-sphæroideis vel sphæroideo-ellipsoideis, 2–3 ≃ 1 hyalinis. 129

Hab. in ramulis aridis juvenilibus Rubi idaei æstate in regione Mustialensi (Fennia).

9. **Apiosporium fimicolum** Speg. Fung. Arg. Pug. IV. n. 111. — Perithecis sparsis, superficialibus, globosis, v. globoso-depressis 200–250, u. d. bysso nullo insidentibus, glabris, subverrucûlosis, membranaceo-subcarbonaceis; ascis globosis 8–12 ≃ 16 sporis, 25–30 μ. diam.; sporidis ellipticis v. subglobosis, 10–12 ≃ 7–8, utrinque obtussime rotundatis, hyalinis. 130

Hab. in fimo vetusto putrescente Caviæ leucopygæ in paludibus secus el Rio de la Plata, prope Barracas del Sur, (Am. austr.) Maj. 1881.

10. **Apiosporium? australe** Speg. Fungi Arg. Pug. IV. n. 110. — Peritheciis superficialibus, dense gregaris, nudis, glaberrimis, atro-nitentibus, globosis 250–300 u. d. carbonaceis fragillimis, tactis nucleum album subpulveraceum mox ostendentibus; ascis globosis 8–10 μ. diam., octosporis (?), dense conglobatis, ac mox fluxilibus; sporidiis elliptico-subrhomboideis, subinæquilateralibus 15 ≃ 2, utrinque obtusiusculis, non v. 2-guttulatis, hyalinis. 131

Hab. in disco trunci palmæ cujusdam diu loco udo servati in Universitate bonariensi, Febr. 1881 (Amer. austr.). — An huc *Licea berteroana* Mont. (Gay. Fl. Chil. v. VII, p. 20) ducenda, etsi (ob errorem?) sporis nigris donata describatur?

Species, ob ascos ignotos, dubiæ.

11. **Apiosporium Ulmi** Fuck. Symb. p. 87. — Peritheciis minutis confluentibusque, planis, subconvexis, opacis, rugulosis, atro-fuscis; ascis nondum visis; sporidiis ovatis, vel irregulariter globosis, nucleatis, hyalinis, 8 ≃ 6. — Status conid. est *Torula ulmicola* Rabh. 132

Hab. in ramis vivis corticatis Ulmi suberosæ, Hattenheim, Rhenogovia, Autumno, socia *Torula ulmicola.*

12. **Apiosporium Abietis** Kunze Myc. Heft. I. p. 8. Fr. Syst. Mycol. III. 255 — Acervulis hemisphæricis, olivaceis, peritheciis e globoso pyriformibus. 133

Hab. in ligno abietino in Saxonia. — Pulvis, quo perithecia extus conspersa sunt, velo pulveraceo variarum Sphæriarum similis est.

13. **Apiosporium Brassicæ** (Lib.) Fuck. Symb. Myc. p. 86. *Perisporium Brassicæ* Lib. exs. n. 280. — Peritheciis superficialibus, globulosis, minutissimis, dense aggregatis; ascis..... haud visis; sporidiis subtetragonis, irregulariter ovoideis, globosisque, uniguttulatis, hyalinis, 16 ≃ 12-14. 134

Hab. in caule putri Brassicæ in Germania et Belgio.

14. **Apiosporium stilbosporeum** Fr. Syst. Mycol. III. 256. — Acervulis effusis atris, peritheciis e cylindrico ovatis. 135

Hab. Profuse ad longitudinem ulnarum tegit ramulos cariosos in Carolina (Schweinitz). — Hic a Stilbospora omnino diversus fungillus ex hac serie potissimum videtur. Perithecia etiam sparsa occurrunt, interdum in bacilli fere clavati speciem elongata.

15. **Apiosporium Corni** Wallr. Fl. crypt. n. 4128. — Peritheciis minutissimis tornato-globosis, lævissimis nitidis, olivaceo-nigris sparsim aggregatis, dein integram folii faciem obliterantibus stratoque granuloso stygio veluti obducentibus. 136

Hab. in foliis Corni sanguineæ vegetis hypophyllum, rarius, in Germania.

16. **Apiosporium Centaurii** Fuck. Symb. myc. p. 87. t. I. f. 1. — Mycelio conidiophoro *Torulam Centaurii* Fuck sistente: catenulis fasciculatis demum confluentibus, atro-olivaceis, articulis globosis, plerumque senis octonisve non secedentibus; statu ascophoro ignoto. 137

Hab. in foliis caulibusque Erythreæ Centaurii in Germania, Italia.

17. **Apiosporium Salicis** Kze. u. Schm. Myc. Hfte. I, p. 8. Fuck. Symb. p. 88. — Peritheciis ascophoris structura minute cellulosa, fusca, 138

gregariis, globosis oblongisve, durissimis, aterrimis; ascis?; sporidiis ovatis, nucleatis, hyalinis, 10 ≃ 8; conidiis concatenatis, articulis ovatis, fuscis, e basi peritheciorum emergentibus.

Hab. in cortice duriore Salicum in Germania, Italia, Gallia. — Efficit grumulos irregulares, nigros. «Datur var. *populinum*, (cellulis perithecii interioribus-ascis immaturis?-globulosis 7-8 μ. d. nucleatis, hyalinis). In ligno Populi in Gallia [Michelia]».

18. **Apiosporium Hyphæ** Fuck. Symb. Mycol. App. III. p. 17. — Peritheciis sparsis, demum totis superficialibus, minutissimis nudo oculo vix conspicuis, globosis, atris, astomis; ascis ..... nondum visis; sporidiis globosis vel parum ovatis, nucleatis, hyalinis, 4 μ. diam. 139

Hab. in Hypha papyracea cavitatem in trunco quercino obducente, Hattenheim, Rhenogovia.

19. **Apiosporium? Melampyri** Sacc. M. V. n. 1095. Michelia I. 243. Peritheciis hypophyllis, gregariis, sphæricis, diam. 35-45 μ., superficialibus, rugulosis, nitidulis, nigris, hyphis parcis hyalinis septulatis basi cinctis, nucleo .....; perithecii contextu parenchymatico, fuligineo. 140

Hab. in pag. inf. foliorum Melampyri arvensis languidorum, sociis *Sphærotheca* et *Coleosporio* in sylva *Montello*, in Italia. Oct. 1877. — An huc pertinet *Perisporium vagans* Dmz.?

20. **Apiosporium Mali** Wallr. Fl. crypt. p, 861. Fuck, Symb. mycol. p. 88. — Acervulis effusis, olivaceis; peritheciis etiam ascigeris structura subgrosse cellulosa, fusca, globosis, 40-80 μ. diam.; conidiis concatenatis, catenularum articulis globoso-ovatis, fuscis, in peritheciorum latere excrescentibus (vide Fuck. l. c. Tab. II. F. 39); ascis?; sporidiis ut in *A. Salicis*. 141

Hab. in utraque pag. corticis durioris Pyri Mali in Germania.

21. **Apiosporium? velutinum** Wallr. Fl. crypt. n. 4130. — Peritheciis minutis tenuibus elongato-subcylindricis, atris, nitidis, stratum velutinum effusum præstantibus. 142

Hab. ad truncos quercinos cæsos Hercyn. inferioris passim.

22. **Apiosporium Plantaginis** Fuck. Symb. Myc. p. 87. — Mycelio conidiophoro *Torulam* (Gyroceras) *Plantaginis* Corda sistente; statu ascophoro ignoto. 143

Hab. in pag. inf. foliorum Plantaginis mediæ nondum emortuorum in Germania, Belgio, Italia.

ANIXIA Fr. (?) Nov. Fl. Suec. ed. I., p. 80. Hoffm. Ic. fung. t. XVIII.

(Etym. dubia). — Perithecia superficialia, glabra v. basi villosa, globoso-hemisphærica, astoma, membranacea, superne irregulariter dehiscentia. Asci cylindracei, paraphysati, octospori. Sporidia ellipsoidea, continua e flavo hyalina.

1. **Anixia spadicea** Fuck. Symb. myc. p. 91. — Peritheciis sparsis, 144
superficialibus, basi filamentis longissimis, fuscescentibus, repentibus, laxis, demum evanescentibus obsessis, hemisphæricis, astomis, siccis rugosis, spadiceis, demum atris latit. 0,7–0,8 mill.; ascis cylindraceo-clavatis, longissime pedicellatis, 120–150, part. sporif. 70–80 ≃ 10–14; sporidiis octonis, monostichis, ellipsoideis vel subsphæroideis, sulphureis (sub microsc. hyalinis), 10–14 ≃ 7–10; paraphysibus filiformibus, ramosis.

Hab. in culmis putrescentibus Secalis cerealis in Fennia et Germania. — Secund. cl. Rostafinski — monente Karstenio — *Anixia spadicea* Fuck., *Tubulina bicolor* Poir., *Didymium parietinum* Schrad., *Licea sulphurea* Wallr. et *L. pannorum* Wallr. unam eamdemque speciem sistunt.

2. **Anixia Wallrothii** Fuck. Symb. mycol. pag. 91. — *Licea sulphurea* 145
Wallr. Fl. crypt. II., p. 344. — Peritheciis majusculis, hemisphæricis, nigro-fuscis, basi subglabris; ascis breviter stipitatis, cylindraceis, 8sporis, 79 ≃ 10 (p. sporif.); sporidiis oblique monostichis, ovatis, simplicibus, episporio sulphureo, 12 ≃ 8.

Hab. in fimo et fermento, Œstrich etc. in Germania (Wallr., Fuck.).

3. **Anixia truncigena** Hoffm. Icon. t. 17, fig. 2. — *Licea sulphurea* 146
Klotzsch. Hb. myc. 1545. — Peritheciis globulosis, fuscis glabris; ascis cylindraceis, longissime stipitatis, 8sporis, 76 ≃ 12 (p. sporif.) sporidiis exacte globosis, simplicibus, episporio sulphureo, 10 μ. d.

Hab. in ligno Pini circa Œstrich in Rhenogovia, vere.

4. **Anixia perichœnoides** (Cooke) Sacc., *Orbicula perichœnoides* Cooke 147
Grev. VIII., p. 10. *Chætomium glabrum* B. et Br. — Peritheciis sparsis superficialibus, depresso-globosis, irregulariter dehiscentibus, intus pallescentibus; contextu sinuoso-parenchymatico; ascis cylindraceis 100–110 ≃ 12–13; sporidiis globosis, 10–12 μ. diam., monostichis, e hyalino flavidis paraphysibus filiformibus copiosis, interdum furcatis.

Hab. in caule Brassicæ, trabibus, culmis putridis etc., socio quandoque *Mycogalacte parietino*, quod probabiliter est pycnidium, in Anglia, Germania, Gallia etc. — Forma in regione arctica citata a cl. Berk. Arct. Exp. n. 21 gaudet sporidiis minoribus,

nempe 8 μ. d.; specimina malmadyensia Libertiana præbent sporidia 14-15 ≃ 12. Conf. Rev. Myc. 1881, t. XX., fig. 14.

5. **Anixia cyclospora** (Cooke) Sacc., *Orbicula cyclospora* Cooke Handb. n. 2788. — Mycelio radiato, ramuloso, hyalino; peritheciis globosis, obscure fuscis, contextu reticulato; ascis cylindricis; sporidiis globosis, hyalinis. 148

Hab. in charta murali, vernicea in Hollandia et Britannia, sociis *Rhinotricho lanoso, Penicillio chartarum* et *Sporodesmio Alternaria*, quorum, sec. cl. Cooke, *Anixia* videtur status perfectus.

Species dubiæ.

6. **Anixia (Orbicula) Buxi** Magnin in Ann. Soc. bot. Lyon. Nov. 1876 — Peritheciis sæpius pyriformibus, sporidiis fusoideis. 149

Hab. in pag. inf. foliorum Buxi, Lyon. «An Nectriella?».

7. **Anixia villosa** Fr. Syst. Myc. III. 227. — Peritheciis difformibus, villo albo obductis, fibris basi radicatis, intus demum cavis, apiceque varie dehiscentibus; ascis..... sporidiis globosis. 150

Hab. in humo atra foliis obtecta in Scandinavia.

8. **Anixia interrupta** Schw. Syn. Am. bor. n. 2395. — Pallido-carnea, tuberibus (?) interruptim connexis ad longitudinem uncialem aut biuncialem, tamen faciliter separabilibus, insidentibus fibrillulis himantioideis longe repentibus, superficie lacunosa, tuberibus ¼ unciali crassitudine, intus albis, cavis. 151

Hab. in terra ex putrescentibus truncis orta in cavitate, Bethlehem, Amer. bor.

9. **Anixia minuta** Schulz. Verhand. z. bot. Gesell. Wien 1872, p. 405. 152

CEPHALOTHECA Fuck. Symb. Myc. App. I, p. 297 (Etym. *Cephalos*, caput, *theca*, ascus, ob ascos globosos). — Perithecia simplicia, libera, carbonacea, fragilissima, cellulis minutis contexta, globosa, astoma, undique pilosa vel villo floccoso tecta, demum subglabra, fusca atrave. Asci primo in hypharum ramosarum apicibus, glomerulos globosos formantes, demum liberi, 8spori. Sporidia conglobata, demum libera, simplicia, ovata vel subfusiformia, fusca opacave.

1. **Cephalotheca sulfurea** Fuck. Symb. Myc. App. I., p. 297. — Peritheciis sparsis gregariisve, ⅓-½ mill. diam., globosis, villo sulfureo tectis, demum vertice glabris atrisque, denique totis glabris et mox diffractis; ascis maturis 10 μ. diam.; sporidiis ovatis, 6-7 ≃ 3; hyphis ascigeris multiguttulatis, 1 μ. crass. 153

Hab. in asseribus putridis quercinis in humo ammoniacali positis, circa Œstrich in Rhenogovia, nec non in Britannia (B. et Br. Ann. Hist. Nat. n. 1729, t. IV, fig. 8). — Asci in peritheciis junioribus tantum inspiciendi.

2. **Cephalotheca trabea** Fuck. Symb. Myc. App. III, p. 17. — Peri- 154
theciis superficialibus, plerumque dense gregariis, ovatis, atro-olivaceis, vertice pilis crispulis, ramosis, asperis, concoloribus longe comatis, *Chætomo comato* similibus; ascis globosis, 8sporis, 20 μ. diam.; sporidiis conglobatis, ovato-ellipticis, continuis, fuscis, 12 ≃ 8.

Hab. in lignis putridis fabrefactis, circa Œstrich in Rhenogovia.

3. **Cephalotheca reniformis** Sacc. et Th. Michelia II, p. 312. — Pe- 155
ritheciis gregariis inter fibras corticales nidulantibus v. denique superficialibus, globosis, astomis, sed vertice quandoque papillulatis, denique sæpe collabascendo cupulatis fusco-nigricantibus, $^1/_3$-$^1/_4$ μ. diam., initio ubique pilis filiformibus fuligineis, 2 μ. diam. vestitis, dein calvescentibus, basique tantum vestitis, contextu crassiusculo, minute parenchymatico, fusco; ascis globosis v. ellipsoideis 10 μ. diam., vel 15 ≃ 14-12, cito diffluentibus, octosporis; sporidiis conglobatis, reniformibus, 4-5 ≃ 3-$3^1/_2$, initio olivaceis, dein dilute fuligineis.

Hab. in laminis librosis Populi putrescentis, Lyon, Majo 1880. — A ceteris speciebus ob sporidia reniformia minuta mox dignoscitur.

4. **Cephalotheca curvata** Fuck. Symb. Myc. App. I. p. 298 et App. 156
II, p. 18, fig. 34. — Peritheciis in ligni putridi cavernis minutis nidulantibus, gregariis, sed totis liberis, minutis, astomis, perfecte globosis, subtilissime punctulatis, nitido-fuscis, undique pilis septatis, concoloribus, rigidis, perithecium quadruplo longioribus, patentibus obsitis; ascis ovalibus, globosisve, 8sporis, 18 μ. diam.; sporidiis conglobatis, simplicibus, subfusiformibus, curvatis, antice acuminatis, obtusiusculis, basi truncatis et subtiliter bi-tuberculatis, tuberculis hyalinis, 1-2-guttulatis, primo fuscis, demum totis opacis, 18 ≃ 6.

Hab. in cavernis ligni quercini putridi, Eberbach, Rhenogovia.

ASCOTRICHA Berk. Ann. N. H. n. 116 (Etym. *askos*, ascus et *thrix* capillus h. e. fungillus setiger, ascophorus). — Perithecia minuta, libera, astoma, hyphis seu appendicibus, pluries furcatis radianti-

bus conidiophoris cincta. Asci lineares, octospori. Sporidia ellipsoidea, continua, fusca.

1. **Ascotricha chartarum** Berk. l. c. Cooke Hand. n. 1936, fig. 319. 157
— Peritheciis tenuibus, olivaceo-fuscis, floccis iterato-furcatis cinctis; ascis cylindraceis, copiosis; sporidiis suboctonis ellipsoideis, fuligineis.

Hab. in charta typographica, King's Cliffe (Britannia).

MAGNUSIA Sacc. Michel. I, p. 122. — Perithecia e globoso horizontaliter oblonga, membranaceo-carbonacea, astoma, glabra, basi filamentis paucis apice circinatis cincta. Asci.... diffluentes? Sporidia continua, olivacea.

Obs. Hoc novum genus, præclaro inventori Paulo Magnus jure meritoque dicatum, a *Chætomidio* differt peritheciis nitidissimis, applanato-oblongis, sola ima basi filamentis parcis cinctis; a *Perisporio* forma perithecii filamentisque apice exquisite circinatis, fuligineisque; ab *Apiosporio*, filamentis iisdem, sporidiis fuscis, subiculo dematieo nullo etc.

1. **Magnusia nitida** Sacc. Michel. I, p. 122. — Peritheciis superficialibus, horizontaliter oblongis $^1/_4$-$^1/_3$ long., aterrimis, nitidissimis, astomis contextu minute sed distincte celluloso, fuligineo, basi filamentis 6–8, plerumque geminatis, perithecio paulo longioribus, apice exquisite circinatis, fuligineis cinctis; sporidiis ellipsoideis, minutis, 4–5 ≃ $3^1/_2$, lutescenti-olivaceis, guttulam hyalinam includentibus. 158

Hab. in ligno pineo putri Berolini, socio *Chætomio calvescente*, 1869 (P. Magnus).

Obs. Sporidia quandoque in glomerulos congregata videntur, an ergo primitus in ascis (cito diffluentibus?) inclusa sint, probabile est.

ORBICULA Cooke Handb. of British Fungi p. 926, p. p. (Etym. *orbis*). — Perithecia subsuperficialia, mycelio fusco insidentia, subglobosa, astoma, submembranacea. Asci octospori, paraphysati. Sporidia globoso-ovoidea, tandem opace fuliginea.

1. **Orbicula tartaricola** (Nyl.) Cooke — Handb. n. 2789. *Sphæria tartaricola* Nyl. Leighton, On *Sph. tartaricola*, cum tabula. — Mycelio superficiali nigro-fusco, radiante, ramosissimo, articulato; cellulis oblongo-moniliformibus nucleolatis; peritheciis sphærico-ovoideis (vertice rotundatis) sub-superficialibus, nigris; ascis linea- 159

ribus, paraphysibus simplicibus obvallatis, apice rotundatis, octosporis; sporidiis monostichis initio sphæricis, subhyalinis, dein ellipsoideis, fuligineis, 12–13 ≃ 9–10, uniguttulatis.

Hab. in thallo Lecanoræ tartareæ near Dolgelly North Wales (Leighton).

THIELAVIA Zopf. in Verhand. bot. Ver. Brandenb. 1876, p. 101 (Etym. ab *F. v. Thielau*). — Perithecia e ramo mycelico spiraliter convoluto (carpogonio) oriunda, sphærica, minuta, astoma; asci copiosi ovati, octospori; sporidia oblonga (cucumeriformia) badio-fusca, continua. — Mycelium conidiophorum fuscum, septatum, ramis in conidia fatiscentibus. In eodem mycelio nascitur *Torula basicola* Berk. statum conidicum alterum hibernantem sistens. Spermogonia minuta sphærica, vertice setulis coronata, spermatiis minutissimis fœta.

1. **Thielavia basicola** Zopf. l. c. Charact. generis. 160

Hab. in partibus subterraneis Senecionis elegantis quem maxime vexat in Horto Berolinensi. — Rami mycelici fertiles 170 ≃ 10. Spermogonia 80–100 μ. diam. Perithecia ascigera 80–130 μ. diam.

CHÆTOMIDIUM Zopf. (ut subg.) Entwick. d. Chætom. p. 280, t. XVIII, fig. 12–18 et t. XIX, fig. 1–12 (Etym. a *Chætomio*. quod cfr.). — Perithecia globulosa superficialia, astoma setosa, nigræ; asci clavati octospori; sporidia globoso-ovoidea, fusca. — Est *Chætomium* prorsus astomum.

1. **Chætomidium fimeti** (Fuck.) Zopf. l. c. *Chætomium fimeti* Fuck. 161
Enum. F. Nass., p. 64 et Symb. Mycol. p. 90. — Peritheciis globosis v. ovoideis, atris, astomis undique subulato-setulosis basi pilis rhizoideis longissimis repente-divaricatis, concoloribus cinctis, usque medium brevissime denique superne levibus, nitidis; ascis majusculis, clavatis longe stipitatis, 40–48 ≃ 14–18 (p. sporif.) sporidiis ellipsoideis, fuscis, 14–16 ≃ 12, lenissime compressis.

Hab. in fimo equino in pratis Œstrich, Berlin, in Germania, Brünn in Moravia.

ASTERINA Lév. Ann. Scienc. nat. 1845. III. p. 59 (Etym. *aster*, quia mycelium radiosum). — Perithecia in mycelio maculiformi radioso atro subsuperficiali (rarius subinnato) insidentia, lenticularia v. globoso-depressa, subastoma, membranacea. Asci potius breves et

crassi, plerumque octospori; sporidia typice biloculiaria, fusca, quandoque vero continua et pluriseptata, hyalina v. fusca.

Obs. Genus elementis heterogeneis compositum, et in posterum in plura dividendum, sed mihi non satis notum ut nunc divellere audeam. Nonnullæ species ostiolo instructæ videntur et tunc ad Sphæriaceas, prope *Sphærellas*, v. *Microthyria* transferendæ essent. A *Dimerosporio* differt peritheciis applanatis, mycelio magis adhærente et adpresso.

Euasterina: sporidiis bilocularibus, fuscis.

1. **Asterina platasca** B. et C. Cuban Fungi n. 732. — Mycelio tenui nigro; peritheciis confluentibus; ascis globosis; sporidiis magnis oblongis, uniseptatis apud commissuram contractis, 25 ≃ 10, dein brunneis. 162

   Hab. in foliis Passifloræ etc. in Cuba.

2. **Asterina reticulata** Kalch. et Cke. Grev. 1880 p. 33. tab. 138. f. 47. — Phyllogena, effusa, fuliginea; peritheciis convexo-applanatis, reticulato-fimbriatis, fuscis 150 μ. diam.; mycelio intricato, ramoso, anastomotico-reticulato, fusco, processibus hamatis, bicellulatis ornatis; ascis clavatis; sporidiis ellipticis, atro-fuscis, medio fascia hyalina ornatis, 16-18 ≃ 7. 163

   Hab. in foliis vivis Oliniæ cymosæ in Africa australi. — Species fabricâ sporidiorum vere peculiaris.

3. **Asterina sphærasca** Thüm. Fungi Austro-Africani n. 119. — Mycelio vel stromate tenui, plus minusve orbiculato, stellato-dendritico, nigro; hyphis inæqualibus, griseo-fuscis, repentibus, longis, ramosis; peritheciis minutis, numerosis, granuloso-punctiformibus; ascis exacte sphæricis, tunica crassissima, lævi, quadrisporis, hyalinis, vel flavescentibus, 35 μ. diam.; sporidiis ellipticis, utrinque rotundatis, bicellularibus, medio constrictis, dilute flavidis demum fuscidulis, pellucidis, 20 ≃ 12. — *Asterinæ megalosporæ* Berk. et Curt. Fungi Cubenses p. 373. proxima. 164

   Hab. ad Capparidis Gueinzii folia viva pr. Olifants Hoek in ditione Uitenhage in sylvis, Kaffraria. Africa. Julio 1876 (Holland).

4. **Asterina pemphidioides** Cooke Some Ind. fung. Grev. V. 16. — In maculas orbiculares, confluentesque disposita; peritheciis hemisphæricis, nitidis, phemphidioideis, brunneis; mycelio brunneo, evanido; ascis obovatis; sporidiis ellipticis, uniseptatis, constrictis, brunneis, 40 ≃ 15. 165

   Hab. in pag. sup. foliorum in India (Hobson). — Mycelii flocci

brunnei processus ovatos laterales gerentes. Affinis *Ast. pelliculosæ* sed sporidia duplo longiora.

5. **Asterina diplodioides** B. et C. North. Am. Fungi n. 787. — Maculis orbicularibus, mycelio interrupto; peritheciis minutis; sporidiis oblongis obtusissimis uniseptatis fuscis, 8 μ. longis. 166

Hab. in foliis Andromedæ acuminatæ, Alabama, Am. bor.

6. **Asterina fimbriata** Kalch. et Cke. Grev. 1880, p. 33, tab. 138, fig. 46. — Epiphylla; peritheciis gregariis, radiato-fibrosis, convexo-applanatis, atro-fuscis, stellato-fissurato-dehiscentibus, margine fimbriato 150 μ. diam.; ascis saccatis, pyriformibus; sporidiis ellipticis, profunde constrictis, uniseptatis, fuscis 15 ≃ 8. 167

Hab. in foliis vivis Sclerochiti Harveyani in Africa austr. — Perithecia in maculas minutas brunneas collecta.

7. **Asterina inæqualis** Mont. Pl. Cellul. Cent. VII, p. 340. — Epiphylla, macularis; peritheciis hemisphærico-depressis, atris; ostiolo mamillari demum deciduo, mycelio atro centro concreto ambitu radiante insidentibus; ascis subglobosis, 100 μ. diam., octosporis; sporidiis majusculis ovoideo-oblongis, 35-40 ≃ 20-30, bilocularibus, constrictis, initio hyalinis, dein fulvis. 168

Hab. in pag. sup. foliorum Malastomatum in Guyana gallica, (Leprieur). — Ab *Aster. Malastomatis* Lév. diversa.

8. **Asterina Mac-Owaniana** Kalch. et Cooke. Grev. 1880, p. 33, t. 137, fig. 44. — Atra, effusa; peritheciis gregariis, discoideis, applanatis 100 μ. d., mycelio radiante nidulantibus; ascis pyriformibus; sporidiis ellipticis, uniseptatis, constrictis, hyalinis dein fuscis, 20-22 ≃ 10. 169

Hab. in foliis Celastri buxifoliæ in Africa australi. — Huc probabiliter *Meliola Mac-Owaniana* Thüm., a quo genere peritheciis applanatis differt. Sec. Rehm Asc. Diagn. n. 295, asci 60 ≃ 45; sporidia 30 ≃ 15.

9. **Asterina megalospora** B. et C. Cuban Fungi n. 733. — Mycelio tenuissimo, subinconspicuo, filis repentibus constante; peritheciis punctiformibus, tandem stellatim dehiscentibus, margine flocculosis; ascis globosis; sporidiis bilocularibus 25 ≃ 15, brunneis, quaternis. 170

Hab. in foliis languidis Passifloræ etc., Bonin Isles, Cuba.

10. **Asterina capensis** Kalch. et Cooke. Grev. 1880, p. 32, tab. 137, fig. 41. — Sparsa; peritheciis orbicularibus, fuscis 150 μ. diam., mycelio fusco, radiante circumdatis; ascis clavatis; sporidiis ellipticis, uniseptatis, fuscis, 16 ≃ 6. 171

Hab. in foliis vivis Hippobromi alati in Africa australi. —

Mycelium processibus brevibus uniseptatis, sæpe invicem oppositis, instructum; setæ paucæ inter perithecia inspersæ.

11. **Asterina connata** B. et C. Cuban Fungi n. 739. — Peritheciis 172
minutissimis cellulosis nec radiato-cellulosis, in soros minutos confluentibus, floccis brevibus parcissimis cinctis; sporidiis minutis oblongis uniseptatis, brunneis, 5 ≃ 2.

Hab. in foliis Clusiæ, in Cuba.

12. **Asterina congesta** Cooke. Fungi Ind. Grev. VIII, p. 95. — Epi- 173
phylla; peritheciis discoideis, atro-brunneis 100–150 μ. diam. rimoso-dehiscentibus, densissime congestis; mycelio tenui, brunneo, sparso; ascis ovatis; sporidiis ellipticis, brunneis, medio hyalino-cinctis, demum uniseptatis 20 ≃ 10.

Hab. in foliis Santali albi, Belgaum, India (J. Hobson).

13. **Asterina carbonacea** Cooke. Ind. Fungi in Grev. VIII, p. 96. — 174
Maculæformis; peritheciis applanatis, discoideis, opacis, atris, gregariis 150 μ. diam.; hyphis paucis, radiantibus; sporidiis ellipticis, uniseptatis, medio constrictis, atro-brunneis 40–50 ≃ 20.

Hab. in foliis coriaceis Belgaum, India (J. Hobson). — Perithecia solito magis carbonacea.

14. **Asterina cupressina** Cooke, New Jersey Fungi, Grev. VI. p. 17. 175
(*Venturia cupressina*, Rehm. Asc., n. 394). — Mycelio prope obsoleto; peritheciis brunneis, membranaceis, floccis radiantibus coalitis, subinde 3–6 pilis rigidis apice obsitis; ascis clavato-pyriformibus, stipitatis; sporidiis uniseptatis, sursum inflatis, globosis, brunneis, 18 ≃ 10.

Hab. in foliis Cupressi thyoidis, New Jersey (Am. bor.). — Pycnidia sæpe adsociata: peritheciis majoribus; stylosporis ellipticis brunneis, 20 ≃ 10. Sec. Rehm. Asc. Diagn. n. 394, asci 50 ≃ 15; sporidia 15 ≃ 6, valde constricta.

15. **Asterina solaris** Kalch. et Cooke. Grev. 1880, p. 33, tab. 138, 176
f. 48. — Amphigena, crustacea, atra; peritheciis convexis, centro depressis, atro-fuscis, densissime radiato-strigosis; ascis.....; sporidiis ellipticis, 1–2-septatis, fuscis, 20–25 ≃ 8.

Hab. in foliis vivis Oleæ verrucosæ in Africa australi. — Fibræ perithecii quandoque fasciculatim coalitæ, patentim verrucosæ.

Asterella: sporidiis bilocularibus hyalinis (v. colore ignoto).
(In nonnullis speciebus sporidia dein fuscescunt).

16. **Asterina megalospora** Berk. et C. in N. Pac. Expl. p. 129, n. 160. 177

— Subiculo parcissimo fimbriante; peritheciis magnis hiantibus; sporidiis maximis uniseptatis.

Hab. in foliis vivis in insulis Bonin. — Affinis *Ast. Azaræ* Lév. 178

17. **Asterina Puiggarii** Speg. Fungi Arg. Pug. IV. n. 114. — Mycelio orbiculariter expanso 2–5 mill. diam., sæpe confluente ac totum epiphyllum occupante, arcte adnato, tenuissimo, ex hyphis gracilibus 5–7 μ. crass. rectis, parce ramosis, crebre septatis, densissime intricatis, simplicibus composito; peritheciis centro mycelii insidentibus, 4–15 laxissime gregariis, dimidiato-scutatis, sublenticularibus 180–250 μ. diam., in sicco sæpe centro umbilicatis, atris, glabris v. hyphis mycelicis velatis, contextu dense prosenchymatico-radiante, ambitu fimbriatulo, fuligineo; ascis elliptico-clavatis, substantia mucoso-filamentosa obvallatis, octosporis; sporidiis ovoideis v. clavulatis, constricto-1-septatis 30 μ. long., loculo supero quandoque elongato, quandoque globoso majore 16–18 ≃ 14–16, loculo infero subconoideo minore 12–15 ≃ 9–12, dense granuloso-farctis, diu hyalinis, in senectute tandem pallidissime fuscescentibus.

Hab. ad folia viva coriacea plantæ cujusdam, Apiahy, Brasilia meridionali (Doct. J. Puiggari).

18. **Asterina fragilissima** Berk. Fl. N. Zel. II. 208. — Maculis parvis orbicularibus, mycelio parco; peritheciis congestis fragilissimis; ascis globosis; sporidiis obovato-oblongis, uniseptatis, 20 μ. long. 179

Hab. in foliis Veronicæ in Nova Zelandia (Colenso). — Maculæ 2. mill. diam.

19. **Asterina sublibera** Berk. Fl. N. Zel. II. 208. tab. CVI. fig. 1. — Mycelio parcissimo e fibris intertextis; peritheciis in maculas minutas collectis; ascis cylindraceo-elongatis; sporidiis quaternis monostichis, unisepiatis, hyalinis, leniter constrictis, 14–15 μ. longis. 180

Hab. in foliis Metrosideri effusæ in Nova Zelandia (Colenso).

20. **Asterina velutina** Berk. et Curt. in N. Pac. Expl. p. 129, n. 165. — Maculis velutinis orbicularibus, fibris erectis, subulatis obsitis; peritheciis minutissimis frequentibus; ascis oblongis; sporidiis oblongis uniseptatis. 181

Hab. in foliis, in insulis Loo Choo in regione Pacifici bor.

21. **Asterina sepulta** Berk. et Curt. in N. Pac. Expl. p. 129, n. 167. — Subiculo repente epidermide diu tecto; peritheciis minutis; ascis oblongis; sporidiis uniseptatis. 182

Hab. in foliis Laurineæ cujusdam in Japonia.

22. **Asterina cincta** Berk. Decad. n. 477. — Mycelio fibrilloso, ma- 183

culoso, fibrillis sparsis ramosis, repentibus; peritheciis globosis setis acutis cinctis; ascis oblongis, v. lineari-oblongis; sporidiis subellipticis, leniter attenuatis, uniseptatis, 10 μ. long., hyalinis.

Hab. in foliis Cameliæ, Khasia (India). Ad *Meliolam* vergit. 184

23. **Asterina difformis** Welw. et Curr. Fungi Angol. p. 284. — Peritheciis orbicularibus v. irregularibus complanatis, filis fuscis e superficie peritheciorum oriundis et ad basim radiatim extensis; ascis rotundatis v. obovatis; sporidiis biseriatis, obovatis, pallidis, 1-septatis, 15–18 μ. long., ad septum constrictis.

Hab. ad folia viva fruticis Menispermacearum in sylva Mata do Pungo, Angola (Africa).

24. **Asterina cordobensis** Speg. Pug. 2. p. 18. — Peritheciis superficialibus minutissimis, 80–90 μ. diam., orbiculari-lentiformibus, contextu dense parenchymatico, membranaceo, atro, in crustam nigram fere totos ramulos ambientem dense congestis; ascis elliptico-clavatis, v. deorsum clavato-pyriformibus, apice crasse tunicatis, breve stipitatis, 22–30 ≃ 12–15, aparaphysatis, octosporis; sporidiis inordinate distichis, ovato-clavatis, 1-septatis non v. vix constrictis, 8–10 ≃ 4, loculo sup. majore, obtusato, hyalinis. 185

Hab. in ramulis vivis Heterothalami bruniöidis in sylvaticis prope Cordobam, Argent. Amer. austr.

25. **Asterina cuticulosa** Cooke, Rav. Am. Fungi in Grevill. VII. p. 49. — Sparsa, orbicularis, atro-brunnea; peritheciis pelliculosis, applanatis; mycelio obsoleto; ascis globosis, 25 μ. diam.; sporidiis ellipticis, uniseptatis, utrinque rotundatis, subconstrictis, hyalinis, 10 ≃ 5. 186

Hab. in foliis Ilicis opacæ, Darien, Carol. (Amer. bor.). — Asci æquidistanti-sparsi, infra cuticulam, quæ ibi bullulosa fit; species ergo abnormis.

26. **Asterina labecula** Mont. Syll. Crypt. n. 911 et Cent. II, n. 61, in Ann., 2, XIV, p. 328, sub *Asteroma*, et Fl. Chil., VII, p. 475. — Epiphylla, maculæ-formis; maculis atris linearibus quoquoversus irregulariter radiato-ramosis; peritheciis minutis astomis sparsis; ascis ovoideo-oblongis hexasporis, sporidiis hyalinis cymbiformibus transverse septatis. 187

Hab. ad folia coriacea, Guyana, (Leprieur); in foliis Desfontainie cujusdam, Valdivia, Chile (Gay.).

27. **Asterina Ammophilæ** Dur. et M., Fl. Alg., I, p. 548, Mont. Syll. Crypt. n. 912. — Maculis orbiculatis, atris, fibrillis tenuissimis radiantibus dichotomo-ramosis anastomosantibusque; peritheciis se- 188

riatis convexis; ascis obovatis 30 ≃ 15 sporidia subsena bilocularia oblongo-fusiformia, 10 ≃ 2.5, hyalina foventibus.

Hab. in foliis Ammophilæ arenariæ, Mostaganem, Algeria (Durieu).

28. **Asterina Eucalypti** (Pass.) Sacc. *Apiosporium Eucalypti* Pass. 189
in Thuem. Myc. Lusit. n. 543. — Amphigena; acervulis punctiformibus, aggregatis, maculas subdiscoideas, fumosas efficientibus; filis ramoso-intricatis, crebre articulatis, castaneo-fuscis; conidiis ellipticis, bi-triseptatis, apicibus hyalinis, interdum moniliformi-concatenatis?; peritheciis membranaceis, cellulis parvis irregularibus, castaneo-fuscis pellucidis contextis; ascis parvis, ovatis, subcurvis, octosporis, madore mox explodentibus; sporidiis oblongis, medio septatis, apicibus obtusis, loculis uni-bi-nucleatis, hyalinis.

Hab. in Eucalypti globuli foliis subputridis, Choupal pr. Coimbra, Lusitania (Moller).

29. **Asterina microscopica** Lév. Ann. Scienc. nat. 5. 1846, p. 267. — 190
Maculis sparsis hypophyllis 2–3 mill. latis e fibris tenuissimis ramosis radiantibus contextis, peritheciis minutissimis stipatis hemisphæricis nigris, ostiolis obsoletis, ascis oblongis, 8-sporis; sporidiis oblongis, 1-septatis, hyalinis.

Hab. in Chili ad folia Chusqueæ, cl. Gay (Herb. Mus. Par.)

30. **Asterina examinans** B. et C. Fungi Cub. n. 737. — Peritheciis 191
minutissimis in soros nigros præcipue nervicolas congregatis, floccis brevibus bifidis apicibus obtusis cinctis; ascis brevibus clavatis; sporidiis ellipticis, uniseptatis, minoribus.

Hab. in foliis, Cuba. — Mycelium obsoletum.

31. **Asterina bullata** B. et C. Cub. Fungi n. 736. — Stromate orbi- 192
culari tenuissimo; peritheciis margine laciniatis, radiato-cellulosis; ascis cylindricis; sporidiis biseriatis, oblongis, subfusiformibus, uniseptatis, 15 ≃ $2^1/_2$.

Hab. in foliis Peperoniæ, maculis fuscis morbosi parenchymatis insidens, Cuba.

32. **Asterina aspersa** Berk. Decad. n. 476. — Subiculo tenuissimo, 193
margine subradiante; peritheciis punctiformibus, poro apertis; ascis oblongis; sporidiis oblongis, uniseptatis.

Hab. in pag. inf. foliorum Lauri, Khasia (India). — Affinis *Asterinæ nubeculæ*.

33. **Asterina nubecula** B. et C. Fungi of Ceylon n. 1142. — Peri- 194
theciis minimis depressis marginatis, in macula nebulosa sitis, fis-

sura tripartita ruptis; ascis brevibus clavatis; sporidiis fusiformibus, uniseptatis, 12–13 μ long.

Hab. in foliis Antidesmatis, Ceylon.

34. **Asterina melioloides** B. et C. Not. of. N. Am. Fungi n. 788. — Orbicularis, parva; peritheciis depressis rugulosis; ascis breve clavatis; sporidiis brevibus, cymbæformibus, uniseptatis. 195

Hab. in foliis Baccharidis halimifoliæ, Carol. inf.

35. **Asterina conglobata** B. et C. North Amer. Fungi n. 786 (Grevillea). — Peritheciis globosis, conglomeratis; ascis obovatis; sporidiis breviter subfusiformibus, uniseptatis. 196

Hab. in Arbuto uva ursi, Amer. bor. — Perithecia mycelio tenui-fibrilloso insidentia.

36. **Asterina decolorans** B. et C. North Amer. Fungi n. 785. — Maculis orbicularibus undulatis bullatis rufis; peritheciis punctiformibus; mycelio parco, filis parcis moniliformibus v. inarticulatis; ascis oblongis brevibus; sporidiis uniseptatis, 10 μ longis. 197

Hab. in folio ignoto, New Jersey. Amer. bor.

37. **Asterina reptans** B. et C. Cuban Fungi n. 734. — Mycelio tenui subreticulato, peritheciis minutis e cellulis radiantibus constructis obsito; ascis clavatis; sporidiis oblongis subfusiformibus uniseptatis. 198

Hab. in foliis Piperis, Cuba. — Habitus cujusdam *Collematis* epiphylli. Specimina juvenilia.

38. **Asterina orbicularis** B. et C. Cuban Fungi n. 784. — In maculas orbiculares disposita; mycelio continuo v. subinterrupto, (var. *interrupta* Thuem.) ascis obovatis; sporidiis oblongis obtusissimis curvatis, uniseptatis. 199

Hab. in foliis Ilicis opacæ, Prini coriaceæ, Carolina inf. et sup., Florida, Amer. bor. — Sec. Thuem. M. U. n. 849 huc spectat *Sphæria Collinsii* Schw. quæ ad genus *Dimerosporium* referenda esset.

39. **Asterina pelliculosa** Berk. Ant. Voy. Crypt. p. 137. — Mycelio pelliculoso, maculiformi, atro; peritheciis globoso-depressis, nigris; ascis obovatis; sporidiis oblongo-ellipsoideis, 16–20 μ. long., 1-septatis. 200

Hab. in foliis Pavettæ, Jasmini, Acrotrematis, Rottbœlliæ, Guazumæ, Prini etc. Ceylon, Cuba, Amer. boreali, Tahiti etc.

40. **Asterina picea** B. et C. Cuban Fungi n. 735. — Peritheciis seminiformibus nigris in mycelio parco orbiculari sitis; ascis cla- 201

vatis; sporidiis biserialibus oblongis, angustis, uniseptatis, 10–12 ≃ 3–4.

Hab. in pagina superiore foliorum, Cuba.

Asteronia: sporidiis continuis, atrofuscis.

41. **Asterina erysiphoides** Kalch. et Cke. Grev. 1880, p. 32, t. 137, f. 42. — Minima, gregaria; Erysiphis speciem simulans; peritheciis applanatis, discoideis 60–100 μ. diam. atrofuscis, membranaceis, radiato-cellulosis; mycelio tenui, ramoso, fusco, circumdatis; ascis.... sporidiis ellipticis, continuis, atrofuscis, 18–20 ≃ 10. 202

Hab. in foliis Jasmini tortuosi in Africa merid.

42. **Asterina appendiculosa** (M. et B.) Mont. Syll. Crypt. n. 914. M. et Berk., in Lond. Jour. of Bot., III., Dec. of Fung., n. 20, t. 15 A, sub *Dothidea.* — Stromate suborbiculari, plano, epiphyllo, fusco opaco, ambitu fibrillis articulatis radioso; peritheciis hemisphæricis prominulis; ascis oblongis brevibus; sporidiis oblongo-ellipticis basi appendiculatis fuscis, sursum (curiosum) circumscissis. 203

Hab. in foliis vivis, Java (Zollinger).

Asterula: sporidiis continuis, hyalinis
(In nonnullis speciebus mycelium parenchymate innatum).

43. **Asterina Epilobii** Desm. 24 Not. 1857 p. 13. — Maculis minutis, 1–3 mill. diam. subrotundis, fuscis, sub-epidermide fibrillosis; peritheciis minutissimis, subcentralibus, globosis, collabascendo concavis; ascis brevibus, medio inflatis; sporidiis ovoideis, 10 μ. long. hyalinis. 204

Hab. in foliis siccis Epilobii hirsuti, hieme, in Gallia. — *Sph. Asteroma* Lib., Lamb. Fl. myc. Belg. II. 242 huc spectare videtur.

44. **Asterina Æsculi** Desm. 24 Not. 1856, p. 13. — Maculis minutis, sparsis, brunneis vel griseis, irregulariter rotundatis, fibrillosis; fibrillis numerosis, epidermide tectis, tenuissimis, di-trichotomis, a centro radiantibus; peritheciis laxe gregariis 75 μ. diam. exilissimis, nigris; ascis brevibus, medio inflatis 30–40 μ. diam. e duplici membrana distinctis; sporidiis hyalinis. 205

Hab. in foliis exsiccatis Æsculi Hippocastani, vere, in Gallia.

45. **Asterina Silenes** (Niessl) Sacc. *Asteroma Silenes* Niessl. Notiz. Kr. Pyr. p. 7. — Peritheciis plerumque epiphyllis in fibrillis repentibus, elegantissime dendritice ramosis, seriatis, maculas atro-fu- 206

scas rotundatas 10 mill. et ultra diam. formantibus, minutissimis 80–90 μ. diam., globoso-conoideis, ostiolo nullo, nitidis, atris; ascis rosulato-fasciculatis, obovatis, sessilibus, 15–18 ≃ 10–11, aparaphysatis, sporidiis 8 stipatis in asci lumine sæpe subsphæroideo, cuneatis, utrinque obtusis, rectis, 2–4 guttulatis, hyalinis, 9–11 ≃ 3–4.

Hab. in foliis radicalibus Silenes nutantis prope Brünn (Moravia) Majo.

46. **Asterina melæna** (Fr.) Sacc. *Asteroma melœnum* (Fr.) Niessl Notiz. Kr. Pyr. p. 7. *Sph. melœna* Fries S. M. 431. *Sphœrella melœna* Auersw. Myc. eur. Hft. 6. p. 16. F. 65. — Peritheciis in fibrillis atris densissime stipatis concrescentibus vix dendriticis stratum crustosum pseudostromaticum formantibus, valde aggregatis, confertis, minutissimis vix 80 μ. diam. e basi globosa vertice subconoideo, ostiolo non visibili, atris; ascis rosulato-fasciculatis, obovatis, vel subsphæroideis, sessilibus, 12–15 ≃ 9–10 vel 10–12 μ. diam., aparaphysatis; sporidiis coacervatis farctis, cuneatis, rectis, utrinque rotundatis, minutissimis, 7–8 ≃ 3, hyalinis, 2– rarius 4-guttulatis; paraphyses desunt. 207

Hab. in caulibus emortuis Astragali glycyphylli, Coronillæ variæ et Dauci Carotæ, Brünn (Moravia).

47. **Asterina solanicola** B. et C. Cuban Fungi n. 738. — Mycelio floccis repentibus; peritheciis globosis marginem versus e cellulis angustis flexuosis compactis; ascis lanceolatis; sporidiis biseriatis oblongis, subfusiformibus, hyalinis. 208

Hab. in foliis Solani, Cuba, Febr.

48. **Asterina clavuligera** Cooke, Rav. Fung. Amer. n. 76, et in Grev. VI. p. 142. — Mycelio atrobrunneo, conidiis ellipticis, brunneis, albofasciatis, septatis, medio-constrictis, pedicellis elongatis, hyalinis; peritheciis scutellatis; ascis subglobosis, ad basim apiculatis; sporidiis ellipticis (vix maturis). 209

Hab. in foliis Vaccinii, Gainesville, Florida, Amer. bor. — Conidia 45 ≃ 12 (sine stip.).

49. **Asterina nigerrima** Ellis Bull. Torr. Cl. 1881, p. 91. — Peritheciis applanatis, minutis 75–100 μ. diam., radiato-contextis; ascis oblongo-clavatis, sessilibus, 30–34 ≃ 10; sporidiis sparsis, oblongo-clavatis, leniter curvatis, subhyalinis, 12 ≃ 3–4, 4-nucleatis; paraphysibus nullis. 210

Hab. in caule Erigerontis, humi dejecto, New Jersey, Amer. bor.

50. **Asterina congregata** Berk. et C. in N. Pac. expl. p. 129, n. 169. 211

— Peritheciis minimis nitidis congregatis; subiculo parcissimo; ore rotundo; ascis helvolis; sporidiis angustis.

Hab. in foliis emortuis, in Nicaragua. — Habitus *Sphærellæ maculiformis.*

Asteridium: sporidiis 2-pluriseptatis.

51. **Asterina Pleurostyliæ** B. et Br. Fungi of Ceyl. n. 1143. — Peritheciis in maculis suborbicularibus membranaceis nigris sitis; sporidiis doliiformibus 4-septatis, articulis constrictis, 50–56 ≃ 25. 212

Haa. in Pleurostylia, Peradeniya, Ceylon. — Mycelii flocci septati, compacti.

52. **Asterina Eugeniæ** Mont. Syll. Crypt. n. 913. Cent. I., n. 36, in Ann., 2, I., p. 359, sub *Dothidea.* — Amphigena, maculæformis, centro opaca atra, fibrillis ramoso-pinnatis, ramis patentibus, ambitu radiata; peritheciis confertis minimis ($^1/_{10}$ millim.) umbilicatis, ostiolo instructis; ascis ovoideis sporidiisque oblongo-subclavatis triseptatis hyalinis. 213

Hab. in foliis vivis Eugeniæ cujusdam, Porto-Ricco (Bertero). 214

53. **Asterina anomala** Cooke et Harkn. Grevill. 1881, p. 87. — Effusa atra, velutina; peritheciis hemisphæricis v. globoso-depressis; mycelio intricato fusco nidulantibus, hinc inde setis rigidis erectis inspersis; ascis clavatis; sporidiis biseriatis, lanceolatis, 1–5-septatis, hyalinis, 20–22 ≃ 4.

Hab. in foliis vivis Lauri, California. — Setæ interdum e perithecio oriundæ; eoque duplo longiores; perithecia 80 μ. diam.

54. **Asterina torulosa** Berk. Fl. N. Zel. II. 208. — Mycelio parcissimo in maculas laxe digestis; ascis elongatis, sporidiis cylindraceis torulosis, 3–5-septatis, viridi-hyalinis, 13–16 μ. long. 215

Hab. in foliis Piperis excelsi in Nova Zelandia (Colenso).

Species dubiæ.

55. **Asterina comata** B. et Rav. North Am. Fungi n. 791. — Sparsa, major; mycelio obsoleto; floccis brunneis dense vestita. 216

Hab. in foliis Magnoliæ glaucæ et M. grandifloræ, Alabama, Santee Canal, Florida. — Specimina immatura, sed prædistincta visa.

56. **Asterina Wrightii** B. et C. North Amer. Fungi n. 790. — Mycelio tenuissimo; peritheciis granuliformibus, fuscis, floccis cirrhatis circumdatis; ascis clavatis brevibus. 217

Hab. in quadam Cucurbitacea levi, Texas, Amer. bor.

57. **Asterina confluens** Kalck. et Cooke, Grev. 1880, p. 33, tab. 137, 218

fig. 45. — Epiphylla, crustacea, membranacea; peritheciis applanatis, discoideis, 100 μ. d., confluentibus, radiato-cellulosis, hinc illinc maculis crustaceis efformantibus.

Hab. in foliis emortuis Plectroniæ ciliatæ in Africa austr. — Specimina immatura, ergo dubia.

58. **Asterina scutellifera** Berk. Decad. n. 468. — Mycelio tenuissimo pelliculoso reticulato; peritheciis scutelliformibus, immixtis aliis punctiformibus; ascis..... sporidiis (in peritheciis punctiformibus) oblongis, curvulis, hyalinis 2–3 μ. long. 219

Hab. in foliis vivis Antidesmatis, Chittagong, India.

59. **Asterina granulosa** (Klotzs.), Hooker et Arn., in Beechey's, Voy. II, p. 54. — Mont., Fl. Chil., VII, p. 451 (ubi descriptio invenitur et fructus qui nondum innotuerat), sub *Dothidea*, Mont. Syll. crypt. p. 256. 220

Hab. in foliis Baccharidis cujusdam aut Myrti, Valparaiso, Chile (Bertero). — «Libros citatos non vidi».

60. **Asterina asperata** (Schw.) B. et Curt. Exot. Fungi Schw. p. 291. — Maculis orbicularibus tenuissimis; peritheciis minutissimis, punctiformibus asperatis, ascis et sporidiis ignotis. 221

Hab. in foliis vivis Surinam. — Maculæ 2–3 lin. latæ.

61. **Asterina micropeltis** B. et Br. Fungi of Ceylon n. 1141. — Peritheciis punctiformibus solitariis, mycelio brevi ramoso cinctis. 222

Hab. in foliis Jambosæ hemisphæricæ, Ceylon.

62. **Asterina ditricha** Kalch. et Cooke. Grev. 1880, p. 32, tab. 137, f. 43. — Hypophylla, effusa, fuliginea; mycelio radiante, ramoso, atro-fusco, processibus papillatis, gangliformibus ornatis; hyphis tenuioribus, ramosis, conidiiferis immixtis; conidiis fusiformibus triseptatis, fuscis, 15–16 ≃ 4; peritheciis discoideis, (imperfecte evolutis). 223

Hab. in foliis vivis Celastri cujusdam. — Dubia ob immaturitatem peritheciorum.

63. **Asterina spurca** B. et C. Fungi North Amer. n. 789. — Peritheciis sparsis punctiformibus, floccis brevibus duobus vel pluribus junctis, articulatis, radiantibus ornatis. 224

Hab. in foliis caulibusque Hyptidis radiatæ, Carol. inf., Alabama. — Flocci apice quandoque furcati.

64. **Asterina punctiformis** Lév. Ann. scienc. nat. 5, 1846, p. 267. — Mycelio e fibris adnatis ramosis discretis radiantibus contexto; peritheciis nigris minutis sparsis, ostiolis obsoletis. 225

Hab. in Java ad paginam superiorem Conceveibi javensis. Zollinger n. 185 (herb. Mus. Par.).

65. **Asterina pulla** Lév. Ann. scienc. nat. 3, 1845, p. 60. — Epiphylla, receptaculis centro confluentibus, subglobosis, apiculatis, fibris cohærentibus, ambitu distinctis ramosis radiantibus. 226

Hab. in Bolivia, ad folia Melastomatum. PENTLAND.

66. **Asterina Azaræ** Lév. Ann. Scienc. nat. 3. p. 59. — Epi-hypophylla; peritheciis gregariis, nigris, lævibus, conicis demum depressis, fibrillis distinctis ramosis radiantibus vix maculantibus. 227

Hab. in Chili, in foliis Azaræ serratæ (herb. Mus. Par.). — Maculæ 1-2 mill. latæ.

67. **Asterina Melastomatis** Lév. Ann. scienc. nat. 3. 1845, p. 59, *Dothidea Melastomatis* Kunze? — Epiphylla, peritheciis gregariis nigris apiculatis, fibrillis parcis ramosis radiantibus vix maculantibus. 228

Hab. in Brasilia, in foliis Melastomatum (herb. GUILLEMIN).

68. **Asterina compacta** Lév. Ann. scienc. nat. 3. 1845, p. 60. — Epiphylla, peritheciis subglobosis, centro confluentibus, depressis maculis orbiculatis insidentibus, fibrillis vix distinctis. 229

Hab. in Chili austr., in foliis Drymidis chilensis. — Maculæ 1-3 mill. latæ.

69. **Asterina bullata** Berk. et C. in N. Pac. Expl. p. 129, n. 170. — Maculis orbicularibus e matrice elevata enatis, filis in stratum compactum tenue hic illic cellulosum intertextis; peritheciis prominulis. 230

Hab. in foliis emortuis in Nicaragua. — Habitus *Strigulæ*.

70. **Asterina ostiolata** Berk. et C. in N. Pac. Expl. p. 129, n. 166. — Punctiformis, nigra; subiculo nullo nisi peritheciali; ostiolo distincto papillæformi. 231

Hab. in pag. sup. foliorum, socio Cephaleuro virescente, Nicaragua.

DIMEROSPORIUM Fuck. Symb. Myc. p. 89 (Etym. *dis*, bis; *meros* pars et *spora*, quia sporidiis bilocularibus pollet). — Perithecia superficialia, globulosa, astoma, membranaceo-carbonacea, mycelio copioso subcrustaceo nigro, conidiophoro insidentia. Asci breves, octospori. Sporidia didyma, hyalina v. fusca. — Confer *Asterinæ* species (subgenera *Euasterina* et *Asterella*).

1. **Dimerosporium abjectum** (Lib.) Fuck. Symb. Myc. p. 89. *Dothidea Veronicæ* Lib. (1830-1837), *Sphæria abjecta* Wall. (1833). *Capnodium sphæricum* Cooke. *Meliola abjecta* Schröt. — Peritheciis gregariis, superficialibus, minutis globoso-conicis, atris, basi hyphis repentibus ramosis, fuscis, conidiophoris cinctis; conidiis 232

oblongis didymis constrictis 16 ≃ 8, fuscis; ascis ovatis sessilibus, 8-sporis, 30-36 ≃ 20; sporidiis clavato-oblongis, bilocularibus, loculo sup. majori, 12 ≃ 6, hyalinis dein fuscidulis.

Hab. in utraque pagina foliorum Veronicæ officinalis in Germania, Helvetia, Anglia, Belgio.

2. **Dimerosporium pulchrum** Sacc. in Thüm. Mycoth. Univ. n. 52 (sub *Apiosporio*) et Fungi Ven. novi ser. II, p. 299, F. it. tab. 127. — Hyphis repentibus dense intricato-ramosis, remote septatis, fuligineis, pelliculas aterrimas amphigenas facile secedentes sæpe totum folium occupantes efformantibus; conidiis in vel sub ramulorum apice quandoque obtusato vel subclavato oriundis, dimorphis, aliis sarcinuliformibus 4-12-cellularibus, 20-25 μ. diam., atris, dein prorsus opacis, aliis cylindraceo-fusoideis, leniter falcatis, 39 ≃ 9, 3-septatis, ad septa non constrictis, hyalinis; peritheciis raris ex hyphis oriundis, subglobosis, fuligineis, 90-100 μ. diam.; ascis ellipsoideis, 46 ≃ 30, 8sporis; sporidiis polystichis oblongo-ovoideis, 22 ≃ 11, constricto-1-septatis, hyalino-nebulosis. 233

Hab. in foliis Ligustri vulgaris languentibus copiose et Corni sanguineæ, Carpini Betuli et Loniceræ Xylostei longe rarius in sylva *Montello*, *Treviso* (Italia). — Status conid. sistit *Sarcinellam heterosporam* Sacc. (*Coniothecium Questieri* Desm.?).

3. **Dimerosporium oreophilum** Speg. in Roum. Rev. Mycol. II. 32. Mich. II. 160. — Peritheciis gregariis v. hinc inde sparsis, superficialibus, minutissimis, 110-120 μ. diam., globosis, undique hyphis exiguis fuligineis, perithecii diametrum vix æquantibus, ostiolo vix perspicuo, atris; contextu tenui membranaceo-parenchymatico, atro-fuligineo; ascis cylindraceo-clavatis, antice obtuse rotundatis, postice in stipitem brevissimum et nodosum desinentibus, 60-65 ≃ 20, paraphysibus filiformibus paulo longioribus obvallatis, octosporis; sporidiis ovoideis, medio constricto-1-septatis, 15-16 ≃ 7-8, loculo superiore majore, hyalinis. 234

Hab. ad ramulos vivos Rhododendri ferruginei in alpinis *M. Marmolade* alt. 2800^{m}, *Cadore* (Italia), Oct. 1879. Spegazzini.

4. **Dimerosporium maculosum** (Speg.) Sacc. Mich. II. 159. *Apiosporium maculosum* Dec. Mycol. n. 85. — Peritheciis in pulvinulis conidiophoris (*Cladotrichum maculosum* Speg.) sparsis, parvulis, 60-70 μ. diam., globosis, astomis, hyphulis fuligineis exiguis, crassitie sat variis instructis, contextu membranaceo-parenchymatico, fuligineo; ascis cylindraceo-clavatis, 30-35 ≃ 8, octosporis; sporidiis 235

distichis cylindraceo-fusoideis, utrinque obtusiusculis, 8–10 = $2^1/_2$–$3^1/_2$, 2–4-guttulatis, dein 1-septatis, leniter constrictis hyalinis.

Hab. Ad folia viva v. exsiccata Rhododendri Chamæcisti in vertice *M. Crosera* (Ital. bor.) Aug. 1879, (Spegazzini). Descriptio cl. Spegazzini l. c. exemplaria immatura spectare videtur.

5. **Dimerosporium mangiferum** (Cooke) Sacc. *Capnodium mangiferum* Cooke Rep. diseas. plant. p. 5, fig. 3. — Mycelio effuso crustaceo nigro, velutino e filis ramosis catenulisque conidiorum sphæricorum fuligineis constante; peritheciis globoso-pyriformibus $^1/_{10}$ mill. alt. vertice rotundatis, astomis; ascis obovoideis, apice rotundatis, subsessilibus; sporidiis subtristichis oblongis, utrinque rotundatis, uniseptatis, leniter constrictis, hyalinis, 12–14 μ. long. 236

Hab. in utraque pagina Mangiferæ indicæ (*Mango*) in India orient.

6. **Dimerosporium molle** (B. et Br.) Sacc. *Meliola mollis*, B. et Br. Fungi of Ceyl. n. 1178. — Filis mollibus rhachodioideis; ascis linearibus; sporidiis ellipticis, uniseptatis, 20 = 10. 237

Hab. in foliis Syzygii Jambolanæ, Damboul, Ceylon. — Maculæ orbiculares, molles, nigræ; conidia minuta 4–5 μ. long., floccorum apicibus inserta.

7. **Dimerosporium Baccharidis** (B. et Rav.). Sacc. *Meliola Baccharidis*. B. et Rav. Berk. North Am. Fungi n. 988, in Grevillea. — Peritheciis globosis lævibus; floccis flexuosis quandoque furcatis; sporidiis oblongis, angustis, uniseptatis. 238

Hab. in foliis Baccharidis in Carolina inf. (Ravenel).

8. **Dimerosporium Fumago** (Niessl) Sacc. *Meliola Fumago* Niessl. Hedw. 1881, p. 99. — Mycelium epiphyllum fuliginosum v. fuscum, effusum, adnatum; peritheciis e mycelio erumpentibus, gregariis, rugulosis atris; ascis amplis obovatis, stipite brevissimo 75–80 = 56–65; sporidiis octonis, inordinatis, oblongis, utrinque obtuse rotundatis, medio septatis, valde constrictis, atrofuscis, 30–36 = 12–15, paraphysibus crassis ascos æquantibus. 239

Hab. in foliis Celastri, Calcutta, Ind. or. (Kurz).

9. **Dimerosporium Mac-Owanianum** (Thuem.) Sacc. *Meliola Mac-Owaniana* Thm. Myc. univ. n. 568. — Cæspitulis epiphyllis, numerosis, sæpe confluentibus, aterrimis, ex centro radiatis; peritheciis carbonaceis, magnis; ascis fere pyriformibus, octosporis, hyalinis, episporio tenui, 75 = 50; sporidiis clavatis, medio eximie constrictis, bilocularibus, parte superiore 10,5 μ. crass., parte inferiore 13 μ. crass., sporidiis totis 25 μ. long., utrinque acutiusculis, hya- 240

linis; setulis erectis, continuis, subramosis, gangligeris, apicibus clavatis, fuscis.

Hab. in Promont. bonæ spei: Somerset-East in dumetis montis «Boschberg» ad folia viva Celastri buxifolii Lin. Æst. 1876 (P. Mac-Owan.).

10. **Dimerosporium Ellisii** Sacc. *Meliola maculosa* Ellis Bull. Torr. 241
Bot. Cl. 1881, p. 91. *Venturia maculosa* Ellis. N. A. F. n. 200. — Maculis hypophyllis, 10 μ. circ. diam., nigris; peritheciis subglobosis, pertusis (?), subiculo brunneo insertis, appendicibus paucis, rectis, nigris perithecium subæquantibus; ascis sessilibus oblongo-cylindraceis, 50 ≃ 10; sporidiis inordinate monostichis, ellipsoideis 10–12 ≃ 5, constricto-1-septatis, subhyalinis.

Hab. in foliis dejectis Andromedæ?, New Jersey, Am. bor.

11. **Dimerosporium Psilostomatis** (Thuem.) Sacc. *Meliola Psilostomatis* Thuem. M. U. n. 775. — Maculas radiantes magnas effusas tenuissimas atras plus minusve orbiculatas in foliorum pag. inf. raro in super. formans; peritheciis subcarbonaceis parvis, subglobosis; floccis repentibus ramosis, interdum obscure septatis, fuscis, tenuibus; ascis late clavatis, vertice epidermide incrassato, basi angustato, sæpe subcurvatis, 45 ≃ 24–26, octosporis; sporidiis trifariis, anguste ellipticis, septatis, medio constrictis, loculis æqualibus utrinque rotundatis, sæpe uni-binucleatis, 16–20 ≃ 6–9, fuscis, paraphysibus nullis. 242

Hab. in Promot. Bonæ spei, Somerset-East in foliis vivis Psilostomatis ciliati ad pedem montis Boschberg in sylvis Dec. 1876 (Prof. Mac-Owan).

12. **Dimerosporium oligotrichum** (Mont.) Sacc. *Meliola oligotricha* 243
Mont. Syll. Crypt. n. 909. — Epiphylla; peritheciis sparsis subsolitariis minutissimis, sphærico-depressis, setulis erectis subulatis cinctis, stromate fibroso radiante ramoso fultis; ascis oblongo-ovoideis basi unguiculo specie pedicellatis, octosporis, hyalinis; sporidiis ovoideis, transversim uniseptatis, tandem fuliginosis.

Hab. in foliis Olyræ apud Cayennam (Leprieur). — Habitus *Vermiculariæ* cujusdam. A *Meliola amphitricha* sporidiis ovoideis, non cylindricis, triplo minoribus, etc., maxime recedit. Uno verbo est *Meliola* cum fructificatione *Asterinæ*.

Dimerosporium Collinsii (Schw.) Thuem. M. U. n. 849. Vide *Asterinam orbicularem.*

ZOPFIA Rabh. Fungi Eur. n. 1734 (Etym. a W. Zopf, mycologo in-

ventori). — Perithecia innata carbonacea, rotundato-depressa, parce fibrillosa, astoma demum vertice rumpentia. Asci magni scrotiformes, breve stipitati, 4-8-spori, mox deliquescentes. Sporidia grandia, oblonga, bilocularia, constricta, utrinque apiculata, atrofusca.

1. **Zopfia rhizophila** Rabh. l. c. Characteres generis. 244

Hab. in radicibus Asparagi off. in Germania. — Fungillus quasi hypogæus; perithecia globoso-depressa; sporidia 65–70 ≃ 32–35.

PERISPORIUM Fr. S. M. III. 248 (Etym. *perispeiro*, dissemino) — *Preussia* Fuck. Symb. myc. p. 91 [species genuinæ ascigeræ]. — Perithecia ascigera gregaria, superficialia, carbonacea, astoma, dein irregulariter rupta, globosa depressave, basi hyphopodio delicatulo, floccoso, hyalino suffulta; asci clavati, longe stipitati, 8spori; paraphyses nullæ; sporidia oblongo-cylindracea, 4cellularia, cellulis utrinque ultimis conicis, interioribus subquadratis ovatisve, opaco-fusca mox fatiscentia. — St. conidiophorus in nonnullis *Torulam* referens. — Genus paucis speciebus vere genuinis, ceteris mihi incertissimis compositum.

Species genuinæ.

1. **Perisporium vulgare** Corda Icon. II. fig. 97. Sacc. F. it. tab. 599. 245

Gregarium, globosum, nigrum, nitens, superficiale, astomum; ascis crasse clavatis, breviter noduloso-stipitatis, 35–40 ≃ 17–19, 8sporis; sporidiis cylindraceis, 4-cellularibus, fuligineis, 28 ≃ 5, articulis mediis oblongo-cuboideis, extimis subconoideis, 6–7 ≃ 5.

Hab. in lignis, charta, stercore ovino, chorda etc. putridis in Britannia, Germania, Gallia, Italia, Austria etc. «Distinguitur: in ramis corticatis: ascis brevissime stipitatis 35–40 ≃ 17–19, stipite 7–8 long.; sporidiis 28 ≃ 5. — in charta putri: ascis mediocriter stipitatis 80–100 ≃ 18, stipite 20–30 long.; sporidiis 26 ≃ 7–8. — in stercore ovino nunc: ascis brevi-stipitatis 45 ≃ 15–17, stipite 10 long.; sporidiis 25 ≃ $5\frac{1}{2}$–6. Nunc: ascis 170–190 ≃ 20, stipite 70–100 long.; sporidiis 35 ≃ $6\frac{1}{2}$–7 «[Micbelia]».

2. **Perisporium Typharum** Sacc. Myc. Ven. Spec. pag. 92, t. XV, 246 fig. 41–47 F. it. t. 598. — Peritheciis sparsis, subsphæricis, subsuperficialibus, lævibus, atronitentibus, astomis, $\frac{1}{3}$ mill. diam., basi flocculis hyalinis paucis præditis, contextu distincte parenchymatico, fuligineo; ascis oblongo-clavatis longe tenuiterque stipitatis, tunica crassa, 110 μ. longis, parte sporifera 60 ≃ 22, sti-

pite 50, 8sporis; sporidiis ante maturitatem 4-cellularibus oblongo-cylindraceis, articulis cito secedentibus e sphærico angulosis, 6 μ. diam. brunneis, subopacis.

Hab. ad folia dejecta putrescentia Typharum, quæ jam ad storeas conficiendas usa sunt, nec non in lignis putridis in Agro Veneto et in Gallia. — Affine Perisporio vulgari Corda et P. funiculato Preuss, a quibus differt præcipue ascis angustius clavatis et longius tenuiterque stipitatis et præterea loco natali diverso. Forma in lignis decorticatis distinguitur ascis longe stipitatis 140 ≃ 15-18, stipite 70 long.; sporidiis 25-30 ≃ $6^1/_2$-7.

3. **Perisporium funiculatum** Pr. in Linnæa 24 n. 145. *Pr. funiculata* (Pr.) Fuck. Symb. myc. p. 91. — *Fleischhakia lævis* Auersw. — Peritheciis gregariis vel sparsis, superficialibus, sphæroideis vel hemisphæricis, lævibus, nitidulis, dein irregulariter ruptis filamentis hyalinis, evanescentibus suffultis, atris, $^1/_2$ mill. diam.; ascis creberrimis, oblongatis vel obovoideis, 55-64 ≃ 18-20, pedicello gracili, curvato vel flexo, 30-80 μ. long.; sporidiis elongatis, tetrameris, fuscis, 33-40 ≃ 6-8, mox fatiscentibus, segmentis mediis subquadratis, 8-11 ≃ 6-8, terminalibus subconoideis, 10-12 ≃ 6. 247

Hab. in merda humana et caulibus putridis, lignisque in Germania et Fennia. — St. conid., sec. Fuck., *Torulam niveam* sistens: conidiis globoso-ovatis 3-4 μ. diam. v. 4 ≃ 3, hyalinis.

4. **Perisporium punctatum** (Auersw.) Sacc. *Fleischhakia punctata* Auersw. Hedw. 1869, p. 2. — Peritheciis dense gregariis, imo cæspitosis, depresso-globulosis, undique impresso-punctatis, atris, opacis $^1/_2$-$1^1/_4$ mill. diam., (denique operculatim circumscissis) paraphysibus numerosis filiformibus; ascis ovoideis abrupte longissime stipitatis, 200-300 μ. long., p. sp. 68 ≃ 27; sporidiis senis (?), tetrameris, fuliginoso-atris, 27-31 μ. long., sporidiorum segmentis subæqualibus rotundatis. 248

Hab. in Thuringia: Arnstadt, ad lignum quercinum mucidum (Doct. Fleischhak). — A *Perisp. funiculato* et *vulgari* differt peritheciis punctatis, ascis 4-6-sporis etc.

5. **Perisporium Kunzei** (Fuck.) Sacc. *Preussia Kunzei* Fuck. Symb. App. II, 18. — Peritheciis gregariis sparsisve, demum totis liberis, globosis seu parum depressis, 1-2 μ. latis, atro-fuscis, lævibus, siccis rugulosis, durissimis, intus corneis, ostiolo minuto, perforato; ascis clavatis, longe anguste subabrupte stipitatis, 8sporis, 56 μ. long. (pars sporifer.), 16 μ. crass.; sporidiis farctis, oblongo-cylindraceis, quandoque curvatis, 4cellularibus, ad septa constrictis, cellulis utrimque 249

ultimis conicis, interioribus binis subquadratis, opaco-fuscis, facile fatiscentibus, totis 24 μ. long., 7 μ. crass.

Hab. in chorda putrescente cannabina, Eisleben, Germania (Kunze). — A *P. funiculato* peritheciis corneis, ascis sporidiisque minoribus differt.

6. **Perisporium Princeps** Berk. Outl. p. 403. — Peritheciis aggregatis, subhemisphæricis, nigerrimis, majusculis; sporidiis brunneis, intra ascos valde stipatis. 250

Hab. in radio rotæ ligneæ intemperiis diu exposito, King's Cliffe, Anglia.

7. **Perisporium Wrightii** B. et C. Cuban Fungi n. 987. — Congestum, granulatum, nigerrimum; ascis brevibus, obovatis; sporidiis (articulis) subglobosis, nucleo lilacino. 251

Hab. in Opuntiæ macrorrhizæ caule, Texas (Wright).

8. **Perisporium Secalis** (Ch. Rich.) Sacc. *Preussia Secalis* Ch. Rich. in Revue Mycol. II. 91. — Peritheciis minutis ½ mill., simplicibus, sparsis vel aggregatis, globosis, lævibus, nigro-fuscis, astomis, basi hyphopodio albo suffultis; ascis pyriformibus, abrupte longe stipitatis, 8-sporis, 70 μ. long.; paraphysibus nullis; sporidiis cylindraceis, 24 μ. long. subopacofuscis, in articulos quatuor decedentibus, articulis 6 μ. long. binis interioribus ovatis utrinque truncatis, binis, utrinque ultimis conicis. 252

Hab. in culmis secalinis putridis S-Amand-de-Fion, Marne (Gallia). — «*Perisporio Typharum* affine».

9. **Perisporium fimeti** B. et C. Cuban Fungi n. 985. — Minutum, sparsum; ascis late ellipticis; sporidiis oblongis ellipticisque plurimis (articulis secessis) brunneis. 253

Hab. in stercore Cuniculi in Carolina inf., Amer. bor.

10. **Perisporium Zeæ** B. et C. Cuban Fungi n. 986. — Peritheciis seriatis basi subtiliter tomentosis; ascis lanceolatis, sporidiis breviter fusiformibus angustis triseptatis, ad septa leniter constrictis. 254

Hab. in culmo Zeæ in Carolina. inf. Amer. bor.

11. **Perisporium nitidum** Berk. Enum. Fungi collect. Portugal. p. 8. — Nitidum, nigrum in maculas congregatum; peritheciis minutis hemisphæricis; sporidiis subglobosis minutis fuscis. 255

Hab. in foliis putridis Agaves americanæ, socia *Nectria sanguinea* et *Pleospora*, prope Situbal (Lusitania). — Asci non visi, quia jam resorpti.

Species dubiæ

(Nonnullæ forte sclerotiaceæ v. sphæriaceæ).

12. **Perisporium disseminatum** Fr. S. M. II. 513. III. 250. — Emergens, 256
globosum, nulla macula cinctum, fuscum nigrumve, intus concolor, demum umbilicatum.

Hab. in caulibus plantarum, culmisque locis humentibus in Suecia, Gallia. — Est e minimis, frequenter quasi disseminatum, confertum, ferme liberum, opacum, læve. Sec. nonnullos auctores est *Perisp. vulgaris* forma.

13. **Perisporium Lentisci** Dur. et M. — Mont. Fl. Alg. I. p. 563. Mont. 257
syll. crypt. p. 900. — Hypophyllum; peritheciis gregariis confertis atris minutissimis nitidissimis, subsphæricis; sporidiis oblongo-fusiformibus 10 ≃ 2 pellucidis, binucleatis.

Hab. in foliis dejectis Pistaciæ Lentisci, in præruptis montis Boudjouch Algeriæ (Durieu). — Asci non visi.

14. **Perisporium Ammophilæ** Dur. et M. — Mont. Fl. Alg. I. p. 564. 258
— Mont. Syll. crypt. n. 901. — Emergens, globosum, minutissimum, myriadeum, atrum, maculæ cinereæ insidens; sporis.... — Species dubia.

Hab. in foliis Ammophilæ arenariæ, La Calle, (Durieu).

15. **Perisporium crocophilum** Mont. — Etude microg. du Tacon (Maladie 259
du safran) in Mem. Soc. de Biologie tom. I. (1849) p. 68. — Mont. syll. crypt. n. 902. — Peritheciis minutis ovoideo-globosis atro-nitentibus, apice poro pertusis, e basi fibras irradiantes emittentibus; nucleo primitus celluloso, cellulis subconcatenatis; sporis globosis minimis.

Hab. in bulbis Croci sativi morbo nomine Tacon nuncupato vitiatis in Gallia.

16. **Perisporium acerinum** Wallr. Fl. crypt. n. 3613. — Innatum, 260
subrotundum, depressum, ambitu veluti marginato elevatum, fuscum, intus carnosum concolor.

Hab. ad folia Aceris Pseudoplatani delapsa in Germania.

17. **Perisporium Fragariæ** Wallr. Fl. crypt. n. 3614. — Innatum, 261
orbiculare, convexiusculum, tenuissime alutaceum, nigro-fuscum.

Hab. ad folia Fragariæ virginianæ putrida in Germania.

18. **Perisporium agaricola** Wallr. Fl. crypt. n. 3622. — Peritheciis 262
globosis fuscis parvis, carnosis, cubilia undique penetrantibus, intus dilutioribus.

Hab. in stipite Russulæ emeticæ intus extusque infarciens in Germania.

19. **Perisporium Colchici** Rabh. D. crypt. Fl. I. 229. — Superficiale, sphæricum, minutum, gregarium, lutescens, dein nigrum, opacum. 263

Hab. in foliis languidis et exsiccatis Colchici autumnalis, Dresdæ, Germania.

20. **Perisporium Iridis** (Schw.) Fr. S. M. III. 249. — Superficiale, globulare, minimum, opacum e flavo-fusco nigrum; colore præcedentium, sed minimum, confertum, globulare, vix distincte collapsum; internam structuram lustrare non contigit. 264

Hab. in foliis exsiccatis Iridearum Amer. bor. — An idem ac præcedens? Rabh.

21. **Perisporium Alismatis** Fr. S. M. III. 252. II. 257. — Emergens, globosum, fuscum, macula indeterminata effusa expallente; sclerotiaceum est, intus compactum; macula folio exarido oritur. 265

Hab. ad folia subvirentia Alismatis natantis in Germania.

22. **Perisporium Arundinis** Desm. Crypt. exs. n. 329 Cooke Handb. n. 1908. — Sparsum, depressum, fere nigrum, minutum; sporidiis ovoideis, v. oblongis, pallide fuscis. 266

Hab. in foliis et vaginis Arundinis in Britannia, Gallia, Germania, — Sec. Fuck. est species imperfecta, sec. Kickx etc. convenit cum *Perisporio vulgari* Corda.

23. **Perisporium Galba** Fr. S. M. III. 251, II, 512. — Emergens, maculis indeterminatis, albicanti-testaceis cinctum, globosum, subpertusum, nigrum. 267

Hab. in caulibus Heraclei, Chærophylli bulbosi in Scandinavia, Germania. — Maculæ, licet non distincte floccosæ et liberæ, evidenter mucedineæ indolis sunt, albido-lutescentes v. subtestaceæ, late circa nodos plantarum majorum effusæ. Ceterum pusillum, opacum, vix liberum, demum pertusum.

24. **Perisporium poliotum**, Fr. S. M. III, 251. II, 512. — Emergens, macula determinata grisea cinctum, globoso-oblongum, subpertusum, nigrum. 268

Hab. in caulibus in Scandinavia, Germania. — Sporæ, sec Kickx globoso-ovoideæ. Sphæriaceis perquam affine, sed ob vegetationem et habitum a ceteris separari non potest. Maculæ sunt thalli species, elongatæ, superficiales, passim spurie fibrillosæ.

25. **Perisporium betulinum** (A. S.) Fr. S. M. III, 249. — Adnatum, rotundato-adpressum, demum collapso-umbilicatum, opacum, e flavo-fusco nigrescens. 269

Hab. ad folia emarcida Betulæ albæ in Suecia et Germania. — Omnino superficiale, licet firmiter adnatum basique subappla-

natum, laxe gregarium, folio exsiccato nunc immutato nunc dealbato-maculari insidens, haud vero exasperans. Coloris mutationes ut in Erysiphe. « An *Melampsora Betulæ?* ».

26. **Perisporium exuberans** Fr. S. M. III, 251. II. 432. — Emergens, 270
cumulis substriæformibus, subcoacervatum, demum liberum, subglobosum, nigrum.

Hab. in caulibus Alliorum in Suecia et Germania. — Non tantum vegetatione cæspititia, sed et stromate quodam sæpius præsente nigro a reliquis dignoscitur.

27. **Perisporium Tragopogi** (A. S.) Fr. S. M. III. 250. — Emergens, 271
globosum, nulla macula cinctum, e fusco nigrum, intus album, disco collapso subpezizoideo.

Hab. in caulibus Tragopogi etc. in Suecia, Germania. — Sparsum, sed satis evidens, præcipue pulpæ colore albido distinctum.

28. **Perisporium fagineum** Fr. S. M. III. 250. — Superficiale, globo- 272
sum ovatumve, spadiceo-pallens, nitidum.

Hab. ad folia putrescentia Fagi in Suecia et Germania. — Perpusillum, sed colore et nitore satis eminens, nec non situ conferto. Refert glandulas in pagina inferiori foliorum *Ribis rubri*, at color magis sordidus et pallidus.

29. **Perisporium ocellulatum** Ces. in Kl. Herb. myc. II. n. 721. Bot. Zeit. 1858, p. 302. (Vercelli, Italia).

30. **Perisporium Belladonnæ** Kirchn. Lotos 1856 p. 244 (Bohemia).
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Species excludendæ.

Perisporium erysiphoides Fr. — Erysiphe communis, forma caulicola (Erys. Perisporium Corda, Cfr. Corda Ic. II, 28, fig. 99).
Perisporium alienum Fr. Moug. — Phyllosticta aliena (Fr.) Sacc.
Perisporium speireum Fr. — Microstieta vagans Desm.
Perisporium gramineum Fr. — Crocicreas gramineum Fr.
Perisporium maculare Fr. — Sphærella macularis (Fr.).
Perisporium alneum Fr. — Sphærella Alni (Fuck) Sacc. (?).
Perisporium circinans Fr. — Venturia circinans (Fr.). Sacc.
Perisporium populinum (Pers.) Wallr. — Melampsora populina Lév.
Perisporium Brassicæ (Lib. — Apiosporium Brassicæ Fuck.

MELIOLA Fr. Elench. Fung. II, 109. (Etym. *melon*, malum v. mamma, ob perithecii formam). — Perithecia in mycelio maculiformi superficiali grumoso radioso atro insidentia, globosa, astoma, membranacea, setis v. appendicibus sæpe eumorphis cincta. Asci sæpius breves, crassi, 2–8-spori aparaphysati. Sporidia typice oblonga, 2-

5-septata, fusca, quandoque vero continua v. fenestrata, hyalina v. fusca.

Obs. Genus elementis heterogeneis compositum, in posterum in plura divellendum; nonnullæ species rectius forte inter *Asterinas* adnumerandæ. Species didymosporas ad *Dimerosporium* transtuli.

Eumeliola: sporidiis 2-5-septatis, fuscis v. fuscidulis.

1. **Meliola cymbisperma** Mont. Syll. n. 904. Cent. IV, n. 96, in Ann. 275
2, XX, p. 374. — Cæspitulis epiphyllis confluentibus atris, fibris erectis; peritheciis opacis globoso-depressis, magnis, scabrosis; sporidiis cymbiformibus altero fine attenuato substipitatis, bi-triseptatis.

Hab. in foliis Smilacis globosæ in Surinamo (Splitgerber). — In monographia cl. Bornetii hæc species desideratur.

2. **Meliola Araliæ** Mont. Syll. Crypt. n. 907, Cuba p. 327. *Amphi-* 276
trichum Araliæ Spreng.! — Hypo- rarius epiphylla; hypothallo maculæformi nigro radiante, ramulis pluriarticulatis; peritheciis ovato-globosis, atris, tandem *Chætomii* ad instar apice ruptis, fibris rigidis nitidis; ascis trisporis.

Hab. in Cuba in foliis Araliæ (Bertero). — Sec. Bornet (Organ. Meliol.) *Amphitrichum Araliæ* Spr. spectat ad *M. amphitricam*, a qua tamen *M. Araliæ* Mont. satis differt.

3. **Meliola Argentina** Speg. Fung. Argent. Pug. I. p. 177. — Amphi- 277
gena, orbiculato-confluens, velutina, atronitens; peritheciis sphæricis, astomis, 250-300 μ. d. appendicibus paucis radiantibus, 200-300 = 9, fuligineis, basi cinctis, granulosis, atris; ascis paucis ellipsoideis, breve crasseque stipitatis, bisporis, 45-50 = 18-20; sporidiis oblongo-cymbiformibus, 40 = 8-10, utrinque obtusiusculis, 3-septatis (spurie?), fumosis. — Macroconidia *Helminthosporium argentinum* Speg. sistentia, clavata, fusca, 4-septata, 55 = 15, hyphis rigidis fulta.

Hab. ad folia languida Cyperaceæ cujusdam in paludosis prope Buenos-Aires, Argent., Amer. merid. — Habitu externo perfecte congruit cum *Meliola amphitricha* Fr. forma *Sabalidis* (Ravenel, North-american fungi n. 81) sporidiis vero tantum 3-septatis mox recedit.

4. **Meliola capnodioides** Thuem. Fungi Austro-Afr. n. 53. — Epiphyl- 278
la, orbiculata, maculæformi, crassa, nigra, radiante, tandem pluribus confluentibus; fibris vel floccis subramosis, flexuosis, brevibus, crassis, fuscis; peritheciis subglobosis, grumosis, carbonaceis; ascis clavatis, apice obtuso, basi angustatis, tunica tenui, 30 = 9, hyali-

nis; sporidiis 8, subclavatis vel cylindraceis, utrinque obtusatis, triseptatis, ad septa non constrictis, 11 ≃ 3, hyalinis, pellucidis.

Hab. in Plectranthi ciliati foliis vivis, in sylvis prope Grahamstown, Promont. bonæ spei. Julio 1876. Leg. P. Mac-Owan. (n. 1259).

4. **Meliola corallina** Mont. Syll. n. 910, Fl. Chil., VII, p. 472. *Dothidea corallina* M., Fl. ins. Fern., n. 46. — Amphigena; mycelio maculæformi, aterrimo, maculis orbiculatis; peritheciis pro ratione magnis globosis vix depressis raro umbilicato-collapsis, tandem circumscissis fibrisque atris rigidis nitidis cinctis; sporidiis triseptatis, oblongis. 279

Hab. in foliis Drymidis chilensis in Chile (Bertero), Juan Fernandez, Cuba (Berk.).

5. **Meliola Cameliæ** (Catt.) Sacc. *Fumago Cameliæ* Catt. Nero, Fumago etc. p. 5, t. XVIII, fig. 1-4. — Mycelio crustaceo nigro, fragili, maculiformi, hyphis confervoideis, ramosis; peritheciis subglobosis 150 μ. diam., setulis rigidis ornatis (præcipue superne); ascis numerosis, crasse ovato-fusoideis, sessilibus, aparaphysatis, octosporis, 50 ≃ 22; sporidiis oblongis, utrinque rotundatis, 3-septatis, 16-18 ≃ 45, olivaceo-lutescentibus. Conidiis pluricellularibus? Spermogoniis tereti-clavatis, apice acuto dentato dehiscentibus; spermatiis ovoideis, biguttulatis, flavidis, 5 μ. long. (an potius ad genuini *Capnodii* formam spectantibus). 280

Hab. in foliis ramulisque Cameliæ japonicæ et Citri in Italia boreali.

6. **Meliola mucronata** (Mont.) Sacc. *Capnodium mucronatum* Mont. Cell. Cent. IX. p. 9, t. 10, fig. A. — Epicladon et epiphyllum, spongiosum, atrum; peritheciis carnosis, sphæricis undique hirsutis, ex hyphis mycelii ramosis articulatis, fasciculatim pinnatimque concretis oriundis; ascis clavatis, octosporis, 160 ≃ 30-40, breve stipitatis; sporidiis ex oblongo cymbiformibus, subdistichis 6-septatis, vix constrictis, utroque fine mucronatis, fuscidulis, 50 ≃ 15. 281

Hab. ad ramos et folia Weinmanniæ trichospermæ in Chile.

7. **Meliola bifida** Cooke, Grevillea 1880, p. 15. — Epiphylla v. caulogena, atra, effusa, velutina; peritheciis globosis; appendicibus erectis apice bifidis, ramulis brevibus acutis; sporidiis cylindraceis, obtusis, 4-septatis, leniter constrictis, 50 ≃ 12, brunneis. 282

Hab. in foliis caulibusque Osyridocarpi natalensis in Natal (Africa).

8. **Meliola formosa** Welw. et Curr. Fungi Angol. p. 284, t. 17, fig. 1. 283
— Mycelio procumbente, effuso, implicato, pinnato, nigro-fusco, setis sparsis, erectis obsito; peritheciis globosis, demum profunde depressis cupulatis; sporidiis pallidis elongato-ellipticis v. leviter curvatis 3-4-septatis, 15 μ. long.

Hab. ad folia circa Quibolo, Golungo alto (Angola, Afr. occid.).

9. **Meliola cladotricha** Lév. Ann. scienc. nat. 5, 1846, p. 266, Bornet 284
Organ. Mel. p. 269, t. 22, fig. 16. — Mycelio effuso, ambitu radiato-ramoso, peritheciis globosis, appendicibus erectis bifidis, ramulo exteriori dichotomo, apice acutis; ascis ovatis; sporidiis elongatis obtusis triseptatis.

Hab. in Borneo in foliis Myrsineæ incertæ (herb. Mus. Paris.).

10. **Meliola furcata** Lév. Ann. Scienc. nat. 1846, p. 266, Born. Organ. 285
Meliol. p. 269, t. 22, fig. 14. — Mycelio epiphyllo orbiculari, nigro, determinato, grumoso, interdum pluribus confluentibus; peritheciis minutis, sphæricis, appendicibus erectis apice dichotomis, ramis ultimis bidentatis; ascis ovatis rostratis, 4-sporis; sporidiis 4-septatis, cylindraceis, obtusis.

Hab. ad folia varia Atalantiæ, Piperis, Clematis etc. in Guyana Batava (Amer. austr.), Amer. bor., Nicaragua, Peradeniya, Ceylon. — Sec. Speg. Argent. IV. p. 41, in appendicibus peritheciorum nascuntur macroconidia acro-pleurogena, clavulata 40-60 = 10-12, uni-triseptata, fuliginea; asci bispori; sporidia 55-65 = 22, quadriseptata.

11. **Meliola glabra** B. et C. Cuban Fungi n. 883. — Mycelio con- 286
fervoideo depresso adnato subglabro; peritheciis globosis, appendicibus brevibus, verrucæformibus; sporidiis 40 μ. long., utrinque acutiusculis, in quoque asco binis.

Hab. in foliis Rubiacearum in Cuba.

12. **Meliola amphitricha** Fr. Elench. Fung. II, 109. Mont. Cuba p. 326, 287
t. 12, f. 2. *Sphæria amphitricha* Fr. S. Myc. II. 513. — Hypophylla; mycelio maculari, a centro radiante, contiguo, aterrimo, ramulis uniarticulatis; peritheciis globoso-depressis rugulosis tandem collabentibus, appendicibus atris opacis rigidis septatis erectis cinctis; ascis disporis; sporidiis 4-septatis, oblongis, fuscis.

Hab. in foliis Loranthi, Salaciæ, Coccolobæ, Perseæ, Psidii, Garriæ, Magnoliæ, Callicarpæ, Cladii, Terminaliæ etc. in America boreali, Amer. austr., Australia, vulgatissima. Conf. Bornet Org. Meliol. t. 22, f. 11. — ***Meliola Psidii*** Fr. in Linnæa 1830, p. 549 non mihi videtur diversa.

13. **Meliola Mœrenhoutiana** Mont. Syll. Crypt. n. 908, Bornet Org. Mel. p. 268, t. 22, fig. 12. — Hypo- rarius epiphylla, velutina, aterrima; maculis punctiformibus orbiculatis regularibus, nunquam confluentibus; mycelio grumoso vix radiante; peritheciis minimis globosis cupuliformi-collapsis inter fibras rigidas erectas setaceas confertissimas quasi absconditis; ascis ovato-rostratis, bisporis; sporidiis 3-septatis. 288

Hab. in foliis Alixiæ stellatæ, Taiti (Mœrenhout), in foliis Symploci, Ceylon, Nuwara Elya (Berk.). — Sporidia, sec. Berk. oblongo-elliptica, 3-septata, 45 μ. long.

14. **Meliola hyalospora** Lev. Ann. Scienc. nat. 1846, V. 256. Bornet Org. Mel. p. 268, t. 22, fig. 13. — Mycelio amphigeno, orbiculari, sparso; peritheciis minutis sphæricis papillatis; appendicibus erectis, simplicibus setaceis; ascis clavato-pyriformibus, 6-sporis; sporidiis ellipsoideis, utrinque attenuatis 3-septatis, loculis extimis minoribus pellucidis, intermediis majoribus coloratis. 289

Hab. in Surinam ad folia Desmonchi (Kegel), Ceylon ad folia Arctotrematis (Berk.).

15. **Meliola inermis** Kalch. et Cooke. Grev. 1880, p. 34, t. 38, f. 51. — Amphigena, atra; peritheciis globosis, hinc illinc congestis 200-250 μ. diam., mycelio ramoso, fusco, nidulantibus; appendicibus nullis; ascis ovoideo-clavatis; sporidiis 2, ellipticis, quadriseptatis, constrictis, 55 × 15, fuscis, (sec. Rehm 40 × 14). 290

Hab. in foliis vivis Buddlejæ auriculatæ, Somerset East, Afr. austr. (Mac Owan). — Species hæc haud convenit cum diagnosi *M. quinquesporæ* Thüm., M. U. 657 et *M. quinqueseptatæ* Rehm. Asc. 492 quæ tamen a nostra non differre videntur.

16. **Meliola Musæ** (Kunze) Mont. Syll. Crypt. n. 905, Bornet Organ. Meliol. p. 269, t. 22, fig. 16, *Myxothecium Musæ* Kunze, Fr. S. M. III, 232. — Cæspitulis maculiformibus magnis nigris; peritheciis minutissimis subinconspicuis; appendicibus erectis simplicibus apice curvatis; sporidiis maximis, oblongis, fuscis, 5-locularibus. 291

Hab. in foliis Uraniæ guyannensis, Surinam (Splitgerber).

17. **Meliola lævis** B. et C. Cuban Fungi n. 884. — Stromate orbiculari atramentario e floccis adpressis lobatis oriundo; peritheciis minutis demum collapsis; sporidiis oblongis obtusis, 4-septatis. 292

Hab. in foliis coriaceis in Cuba.

18. **Meliola Mitchellæ** Cooke. Rav. Fung. Amer. n. 88. — Peritheciis globosis, lævibus; floccis erectis, simplicibus; sporidiis elongato-ellipticis, 4-septatis, brunneis; hyphis conidiiferis septatis, 293

brunneis, apice hyalinis, conidiis lanceolatis vel clavatis, triseptatis, hyalino-fuscis, 20–25 ≃ 4.

Hab. in foliis Mitchellæ repentis, Gainesville, Florida (Amer. bor.). — Sec. Speg. F. Arg. IV. p. 41, sporidia 42–50 ≃ 15.

19. **Meliola orbicularis** B. et C. Cuban Fungi n. 880. — Maculis 294
crassiusculis orbicularibus; peritheciis globosis; appendicibus flexuosis, curvatis, 50 μ. long. crassis, obtusis; sporidiis quadriseptatis.

Hab. in ramis arborum prope summitatem, in Cuba, Februario.

20. **Meliola Cookeana** Speg. in F. Argent. IV. p. 41. *M. amphitricha* 295
Fr. f. *Callicarpæ americanæ,* Rav. F. Amer. n. 84. — Mycelio late et irregulariter effuso, subcrustaceo, atro, ex hyphis densissimis, crassiusculis, brevibus, ramoso-intricatis congesto, mox præcipue ad maturitatem, frustulatim secedente ac evanescente; hyphis conidiophoris paucissimis, rigidulis, sæpius tantum circa perithecia inventis, apice obtusiusculis, integris, monosporis, 120–250 ≃ 8–10 (conidiis deficientibus); peritheciis hinc inde sparsis v. densiuscule gregariis, globulosis etiam in sicco, 150–200 μ. diam., glabris, granuloso-scaberulis, atris, carbonaceis, opacis; ascis tantum per juventutem inveniendis, ellipticis, bisporis, breviter crasseque stipitatis; sporidiis primo hyalinis, dein opace fuligineis, cylindraceis, utrinque obtuse rotundatis 30–40 ≃ 10–12, rectis, 4-septatis, ad septa constrictulis.

Hab. in foliis Callicarpæ americanæ in Carolina austr., Amer. bor. — Species *Mel. Mitchellæ* paraffinis, differt tamen mycelio crustaceo, peritheciis majoribus, carbonaceis, sporidiis minoribus semper rectis; a *M. amphitricha* Fr. longe abhorrens.

21. **Meliola fuliginodes** (Rehm) Sacc. *Capnodium fuliginodes* Rehm, 296
Asc. n. 245 (1874). *Spheconisca humilis* Norman in bot. Not. (1876) pag. 174. — Mycelio longe lateque epidermidem ramorum obducente, griseo-fusco, tenuissimo, ex hyphis plus minusve ramosis composito, quarum cellulis monostiche aggregatis, fuscis, subrotundis, 5 μ. cr.; peritheciis globosis minimis, nigro-fuscis, parenchymaticis; ascis pyriformi-clavatis, apice incrassatis, 45 ≃ 15, 8-sporis, paraphysibus perparcis, ramosis tenerrimis obvallatis; sporidiis obtuse ellipticis, rectis curvulisve, 14 ≃ 5, bi-quadricellularibus, hyalinis v. fuscidulis, biseriatis.

Hab. ad ramos siccos pendulos Aceris platanoidis, Windsheim (Germania). — Nucleus jodi ope immutatus.

22. **Meliola? pulveracea** Speg. Fung. Arg. IV. n. 118. — Mycelio 297
late irregulariter effuso, atro, tenui, velutino; hyphis repentibus

dense intricato-ramosis, parce septulatis, gracilibus, 3 μ. crass., flexuosis, simplicibus, fuligineis, hinc inde ramulos fertiles, erectos 120-300 = 5, apice integros emittentibus; conidiis solitariis, acrogenis, clavato-fusoideis, 3-septatis loculo infero (seu pedicello) plus minusve elongato, ad septa non v. vix constrictis, 30-40 = 6-7, fuligineis; peritheciis minutissimis 60-80 μ. d., hinc inde sparsis, globosis, glaberrimis, papilloso-scabris, subcarbonaceis; ascis ellipticis v. obovatis, sursum obtuse crasseque tunicatis, deorsum abrupte brevissimeque coarctato-stipitatis, 28-35 = 12-15, octosporis, aparaphysatis; sporidiis cylindraceo-subclavulatis, utrinque obtusis, medio 1-septatis, ad septum leniter coarctatis, loculis minute v. grosse 2-guttulatis, hyalinis; an postremo 3-septatis, fuscescentibus?

Hab. ad folia coriacea viva plantæ cujusdam, Apiahy, Brasilia meridionali (J. Puiggari).

23. **Meliola brasiliensis** Speg. Fung. Arg. Pug. IV. n. 116. — Mycelio orbiculariter expanso, sæpe confluente ac totum epiphyllum occupante tenuissimo, atro fere fumoso; hyphis omnibus repentibus, gracilibus 5-9 μ. crass., intricato-strigosis, longissimis 1-1,5 mill. long., semper ac exquisite rectis, densiuscule septatis, hinc inde ramos duos oppositos emittentibus, ramis etiam plurijuge ramulosis, omnibus apice attenuato-acutatis rectisque, ubique hyphopodia(?) alterna brevissima, clavulato-capitata 20-22 = 10-12, 1-septata gerentibus; peritheciis 3-8 in centro mycelii laxe gregariis, gangliis mycelialibus dense prosenchymatico-radiantibus insidentibus, globosis 120-200 μ. diam., numquam umbilicatis, atris, subnitentibus, papilloso-granulosis, in juventute setis paucis, sparsis, rigidis, erectis, apice incrassatis v. sæpius uncinatis, 50 = 8-9, atris vestitis, per ætatem subglabratis; ascis 2-3-sporis, subhromboideis, mox fluxis; sporidiis elliptico-cylindraceis, utrinque obtusis 4-septatis, ad septa leniter constrictis, 40-45 = 18-20, loculis grosse 1-guttulatis, primo hyalinis, dein atro-fuligineis. 298

Hab. ad folia viva subcoriacea plantæ cujusdam, Apiahy, Brasilia meridionali (J. Puiggari).

24. **Meliola spinigera** Speg. Fungi Argent. Pug. IV. sub n. 118. — Mycelio aterrimo, in pulvinulos sparsos hemisphæricos 1-2 mill. d., lanoso-compactos aggregato, fasciculis hypharum erectis, rigidis concoloribus, parcis, acutis, spiniformibus hirto; peritheciis immersis, atris, carbonaceis globosis papillulosis 150-220 μ. diam.; ascis non visis; sporidiis cylindraceo-ellipticis, utrinque obtusis, 4-septatis, atro-fuligineis. 299

Hab. ad folia coriacea, Apiahy, Brasilia merid., socia *Meliola pulveracea* (J. Puiggari).

25. **Meliola megalospora** Speg. Fungi Argent. IV. n. 115. — Mycelio 300
orbiculariter expanso 2–3 mill. diam., sæpius hypophyllo, solitario v. subgregario, non raro confluente, tenui-membranaceo, subcrustaceo, glabro, ex hyphis imperspicue radiantibus, crassiusculis 10 μ. crass., densissime ramoso-intricatis, atris, opacis composito, mox per maturitatem obliterato ac frustulatim deciduo; hyphis (*Helminthosporii* spec.?) conidiis deficientibus; peritheciis centrum mycelii occupantibus, sæpe illo deficiente, nudis, udis, globosis, siccis subcupulato-umbilicatis, mujusculis, 300 ≃ 450, atris, glaberrimis, 4–14 dense gregariis, subcarbonaceis, ubique, cellulis prominulis, granuloso-scabriusculis; ascis ellipticis, sursum obtuse rotundatis, deorsum brevissime et crasse stipitatis, 80–85 ≃ 40, paucis, tantum per juventutem conspicuis ac mox diffluentibus, aparaphysatis, bisporis; sporidiis ellipticis v. subcylindraceo-ellipticis, utrinque obtuse rotundatis 70–80 ≃ 25–32, 4-septatis, ad septa non v. vix leniter constrictis, primo hyalinis, dein opace fuligineis atque fragilissimis.

Hab. ad folia viva Jodinæ rhombifoliæ in sylva australiore «Tordillo» dicta, ac in dumetis maritimis «Cabo S. Antonio», (Amer. austr.) — Species *Meliolæ amphitrichæ* Fr. paraffinis, sed peritheciis majoribus, sporidiis longioribus, crassioribusque, mycelio subcrustaceo sæpius evanido, statu conidico deficiente recedens.

26. **Meliola polytricha** Kalch. et Cooke, Natal. Fungi in Grevill. — 301
Hypophylla, vel amphigena, atra, maculæformis; mycelio effuso, radiato, conidiifero; peritheciis globosis; appendiculis erectis, simplicibus, acutis, plerumque flexuosis; ascis ovatis; sporidiis cylindricis, obtusis, 4-septatis, constrictis, atrobrunneis. Conidiis clavatis, 3–5-septatis, 50 ≃ 8, hyphis erectis, flexuosis insertis.

Hab. in foliis Osyridis albæ et Cunoniæ capensis, Natal (Afr. austr.). — Conidia *Helminthosporium* sistunt.

27. **Meliola zig-zag** B. et C. Cuban Fungi n. 882. — Floccis repen- 302
tibus confervoideis, articulis utrinque emarginatis obliquis; peritheciis setis acutis tenuibus curvulis cinctis; sporidiis magnis 50 μ. long. conidiis helminthosporoideis 40 μ. long. triseptatis utrinque appendiculatis.

Hab. in foliis Cinnamomi zeylanici etc. Ceylon et Cuba. Flocci vere singulares.

28. **Meliola Wrightii** B. et C. Cuban Fungi n. 881. — Maculis tenuibus hypophyllis olivaceis; floccis flexuosis cladosporioideis; conidiis cymbiformibus articulatis; peritheciis floccis æquilongis obtusis cinctis; sporidiis 4-septatis, 40 μ. long. 303

Hab. in foliis Sapindaceæ, ut videtur, cujusdam in Cuba, Febr. — Conidia interdum floccorum lateribus adnata, triseptata, 30-32 μ. long.

29. **Meliola? penicillata** Lév. ann. scienc. nat. 5, 1846, p. 266. — Myceliis effusis adnatis pulvinatis aterrimis, filis crassis e basi ramosis apice penicillatis. 304

Hab. ad truncos in Brasilia meridionali, Dupré (herb. Mus. Par.). — in foliis coriàceis Laurineæ cujusdam, Apiahy, Brasilia meridionali, Jun. 1881 (Puiggari). — Sic decribitur a cl. Spegazzini in F. Arg. IV. n. 42. — Mycelium late irregulariterque effusum, tenue, puberulum, atrum; hyphæ repentes densissisime ac varie intricato-ramosæ, simplices, crassiusculæ 8-9 μ. cr., septulatæ, fuligineæ; hyphæ fertiles seu stipites, ex hyphis mycelialibus exsurgentibus, fasciculatis, atque arcte coalitis compositi, erecti 200-400 ≃ 25, teretes, rigiduli, apice abrupte penicillatim ramoso-expansi; fibræ penicilli, rectæ 150-160 ≃ 5, parce septulatæ, verruculoso-scabræ, pallide fuligineæ, monosporæ; conidia in fibris penicillorum acrogena, cylindraceo-fusoidea 25-30 ≃ 4-5, sursum obtusiuscule attenuata, deorsum elongatula, triseptata, pallide fuliginea; perithecia hinc inde sparsa, globosa, sæpe superne depressa, atra, verruculoso-scabra, subcarbonacea, fragilia, aterrima, 200-220, nuda; asci non visi; sporidia elliptico-cylindracea, utrinque obtusiuscula 55 ≃ 18, 4-septata, ad septa leniter constricta, opace atro-fuliginea.

Meliolopsis: sporidiis continuis, hyalinis v. fuscidulis.

30. **Meliola microthecia** Thuem. in Flora 1876, p. 569. — Maculis parvulis, hypophyllis vel raro amphigenis, tenuibus, orbiculatis, radiantibus, nigris, secedenti-adnatis; floccis simplicibus, raro septatis, fuscis, 8 μ. crass.; peritheciis compressis, orbiculatis, carbonaceis; ascis late clavatis, basi angustatis, apice rotundatis, hyalinis, 6-sporis, hyalinis, 40 ≃ 12-16; sporidiis ovatis, 8 ≃ 4-6, hyalinis. 305

Hab. in foliis vivis Barosmæ scopariæ Eckl. prope Grahamstown, Promont. bonæ spei. (P. Mac-Owan). — Asci, sporidiaque non perfecte matura! « An *Asterina?* ».

31. **Meliola Mori** (Catt.) Sacc. *Capnodium Mori* Catt. Nero etc. p. 5, t. XVIII, fig. 5-6. — Mycelio ramulos gemmasque obducente, et 306

quandoque deformante, crustaceo, aterrimo, hyphis septatis repentibus conflato; peritheciis sphæricis, atris, levibus, glabris, superficialibus; ascis obovato-ellipsoideis, 30 = 12, octosporis, aparaphysatis; sporidiis di-tristichis ovoideis, continuis, translucidis, guttulatis, 12 μ. long. — Conidia multipartita (gemmæ Tul.). Spermogonia peritheciis ascophoris similia; spermatiis ovoideis, brunneis, 7 μ. long.

Hab. in ramulis et gemmis Mori albæ in Insubria (Italia).

32. **Meliola Citri** (Br. et Pass.). Sacc. *Apiosporium Citri* Br. et Pass. 307
Trans. Accad. Lincei vol. I., Catt. Micet. Agrum, p. 22, t. XXII, f. 10. — Mycelio tenui cinereo, folii paginam superam incrustante; filis tenuibus, septatis, ramosis, hyalinis formato; peritheciis punctiformibus badio-fuscis, in mycelii crusta subimmersis; ascis clavatis, octosporis; sporidiis subdistichis oblongis, utrinque rotundatis crassitie sua quadruplo longioribus continuis hyalinis, intus granulosis, simulateque pluriseptatis. — Simul adest stat. conidiophorus *Torulam* subramosam pluri-articulato-guttulatam fuscam sistens et st. pycnidicus *Phomam* microsporam referens.

Hab. ad folia Citri primo cinereo-incrustata, demum veluti fumagine inquinata, in Sicilia. Morbus, quem fungus affert, vulgo dicitur *Mal di cenere.*

33. **Meliola Abietis** (Cooke) Sacc. *Apiosporium Abietis* Cooke, Grev. 308
1881, p. 94, nec Kunze. — Effusum atrum, velutinum; hyphis mycelioideis atrobrunneis; peritheciis globosis exiguis, 100 μ. diam; ascis clavatis 20 = 7; sporidiis ellipsoideis, hyalinis 5 = 2.

Hab. in ramulis vivis Abietis, Glencorse et Penicuik (Britannia). — Crustas format atras, pulveraceas, in quibus perithecia nidulant.

34. **Meliola quinquespora** Thuem. in Flora 1876, p. 568. — Maculis 309
sparsis, epiphyllis, orbiculatis, radiatis, medio elevatis, solubilibus, atris; floccis erectis, crassis, polychotomis, multiarticulatis, flexuosis, fuscis, 10 μ. crass.; peritheciis subglobosis, carbonaceis; ascis ellipsoideis, utrinque rotundatis, raro curvatis, dilute fuscis, 35–38 = 10–12 sporidiis 5, late ovato-ellipsoideis, utrinque obtusis, simplicibus, hyalinis, 10 = 5, subdiaphanis.

Hab. in foliis langueseentibus Buddleiæ auriculatæ Benth. in dumetis montis «Boschberg» prope Somerset-East, Promont: bonæ spei, Aut. 1876, Leg. P. Mac Owan. — Cfr. *Mel. inermis.*

35. **Meliola Tetraceræ** F. Muell. et Thuem. Symb. Myc. Austral. II. 310
n. 92. — Cæspitibus amphigenis, plus minusve orbiculatis vel sub-

stellatis dendriticisve, atris, secedentibus, planis, sparsis; floccis simplicibus vel raro subramosis, inæqualibus, flexuosis, brevibus, badiis; peritheciis carbonaceis, globosis, grumosis; ascis rarissime occurrentibus, cylindrico-fusiformibus, subarcuatulis, utrinque acutatis, hyalinis, 36 ≃ 12; sporidiis ovoideis vel ellipticis; octonis, distichis, utrinque rotundatis, dilute griseo-fuscis, 7 ≃ 5 μ., simplicibus, subpellucidis.

Hab. in foliis vivis Tetraceræ Wuthianæ in Daintree River, Rockingham Bay, Australia (F. Muller).

Pleomeliola: sporidiis muriformibus, fuscis.

36. **Meliola fenestrata** C. et E. in Grev. V. pag. 95. — Subgregaria. 311
Peritheciis subglobosis, brunneis, hinc illinc sparse spinulosis; appendicibus ad basim radiantibus; sporidiis ellipticis, multiseptatis, fenestratis, brunneis, 40 ≃ 12.

Hab. in squamis strobilorum Pini, New Jersey, Amer. bor. — Perithecia interdum glabra, interdum appendicibus rigidis brunneis perithecium æquantibus cincta.

37. **Meliola Penzigi** Sacc. *Capnodium Citri* Penz. Agr. MS. — My- 312
celio crustaceo, nigrescente, facile secedente, effuso; peritheciis globulosis, superficialibus, e filis mycelicis oriundis sed glabris, umbilicatis 150–160 μ. diam., nigris; ascis obovatis, apice rotundatis, sessilibus, octosporis; sporidiis distichis v. conglobatis, ovato-oblongis, 3-septato-muriformibus, constrictis, 11–12 ≃ 4–5, hyalinis dein fuscidulis. Status secundarii: *Coniothecii*, *Heterobotrys*, *Chætophomæ*, *Capnodii* (spermogonici) species.

Hab. in foliis Citrorum in Italia boreali.

Species mihi minus notæ.

38. **Meliola triseptata** B. et B.? (sterilis) Cesati Myc. Born. pag. 25.
Hab. Borneo, ab Helminthosporii specie non determinanda ob- 313
ducta.

39. **Meliola tenuis** B. et C. Cooke Ravenel 's Fungi, Grev. VII. p. 49 314
(nomen).

Hab. in Amer. bor. in Arundinaria. — Vix diversa a *M. amphitricha* (teste Cooke).

40. **Meliola ganglifera** Kalch. Grev. 1880, p. 34, Tab. 138, f. 49. — 315
Hypophylla; maculis, fuligineis orbicularibus; peritheciis globosis, subverrucosis, atris 150–200 μ. diam.; appendicibus erectis, subulatis, simplicibus; mycelio ramoso, repente, processibus gangliformibus subglobosis stipitatis, conico-verrucosis, ornato.

. *Hab.* in foliis vivis Curtisiæ fagineæ in Africa australi, Asci et sporidia ignota.

41. **Meliola Palmarum** Kunze et Fr. S. M. III, 232 (sub *Myxothecio*). 316
— Cæspitulis aggregatis subcircinantibus, fibris flexuoso-cernuis.

Hab. hypophylla in foliis Palmarum vivis, Surinam. — Cæspituli parvi, sed plerumque confluentes, sistunt maculas subeffusas vel elongatas byssaceas inæquales opacas aterrimas, submarginales, crassas. Perithecia globosa, minus opaca.

42. **Meliola seminata** B. et C. Cuban Fungi n. 885. — Stromate par- 317
vo compacto e pilis lobatis; peritheciis totum stroma occupantibus verrucosis; appendiculis setaceis.

Hab. in foliis Palicoureæ, Cuba, Dec.

43. **Meliola pachytricha** (Link sub *Sphæria*) Sacc. *Myxothecium pa-* 318
chytrichum Fr. S. M. III. 232. — Cæspitulis solitariis effusis, fibris erectis crassis rigidis.

Hab. in caulibus sepium Brasiliæ (Beyrich). — Cæspituli magni, effusi, ambientes. Fibræ crassæ, prælongæ, omnino erectæ, distinctæ, continuæ, acuminatæ facie *Helminthosporî* cujusdam, sed omnino nudæ. Perithecia globosa, opaca, inter fibras latent.

44. **Meliola dichotoma** Berk. et C. in N. Pac. Expl. p. 130, n. 171. 319
subiculo velutino; peritheciis magnis, appendiculis uni- bifurcatis, ramulis elongatis.

Hab. in foliis cujusdam plantæ scandentis in Japonia.

COOKELLA Sacc. Mich. I. 407 (Etym. ab ill mycologo *M. C. Cooke*). — Perithecia applanata, membranacea, subsuperficialia, astoma. Asci globoso-ellipsoidei, aparaphysati, octospori. Sporidia muriformia, colorata. — Cum genere *Phymatosphæria* Pass. et *Saccardia* Cooke ascorum et sporidiorum fabrica convenire videtur, sed conceptacula diversissima et sporidia colorata. A gen. *Asterina* Lév. defectu hypharum et sporidiis muralibus differt.

1. **Cookella microscopica** Sacc. Mich. I. 407, Fungi ital. tab. 397. — 320
Peritheciis punctiformibus, gregariis, superficialibus, dimidiato-applanatis, ambitu irregularibus, astomis; contextu tenerrimo, celluloso, dilutissime fuligineo; ascis copiosis coacervatis, initio sphæroideis, dein ellipsoideis, 40-45 = 30-35, sessilibus aparaphysatis, octosporis; sporidiis distichis, oblongis, 20-24 = 8-11, utrinque rotundatis, 3-septato-muriformibus, ad septa leniter constrictis, ochraceo-fuligineis.

Hab. in foliorum pagina inferiore languidorum Quercus pe-

dunculatæ in sylva Montello (Ital. bor.), Oct. 1877, ut videtur, rarissime. Autumnis 1878–81 ibidem frustra quæsivi.

Obs. Cum peritheciis ascigeris adsunt perithecia similia sed spermatiophora; spermatiis globulosis; v. obtuse angulosis, 7–8 micr. diam. initio 1-guttulatis hyalinis, dein ochraceo-fuligineis. *Stigmella dryina* (Corda) Lév. forte statum conidicum sistit.

PHYMATOSPHÆRA Pass. Funghi Abiss. in N. Giorn. bot. ital. VII. p. 188 (Etym. *phyma*, tuber et *sphæra*, quasi sphæria tuberi affinis). — Perithecia (tubercula) in acervulos irregulares aggregata, stromate atro connata v. interdum subsparsa, subglobosa, vertice convexa v. papillata (astoma) intus ascophora et spermatiophora. Asci per tuberculi contextum homogeneum carbonaceum subrotundi, circulo hyalino (cellula ascophora) cincti, utplurimum 8-spori. Sporidia oblonga, pluriseptato-muriformia, hyalina. Paraphyses nullæ. — *Cucurbitariam* extus refert, sed fabrica interiore potius *Dothideæ* accedit, a qua loculis ascophoris deficientibus et ascorum forma satis differre videtur, quibus characteribus e contra *Tuberaceas* in memoriam revocat. — Genus prædistinctum sed quoad locum in systemate dubium.

1. **Phymatosphæra abyssinica** Pass. Funghi Abiss. p. 188, t. V, f. 11. 321
— Peritheciis (tuberculis) cortici immaculato impositis, sæpius aggregatis, atris; ascis subglobosis, hinc papilla stipitiformi præditis, 16–24 ≃ 16, 6–8-sporis; sporidiis stipatis oblongo-ellipsoideis, v. ovato-clavatis, subirregularibus, interdum curvis, hyalinis, 5–7-septato-muriformibus, 10–15 ≃ 3–4.

Hab. in cortice arborum vivarum ignotarum, Keren (Abyssinia) legit. O. Beccari. — Asci quandoque madore elongantur et subclavati evadunt; tubercula quandoque spermatiis minutissimis tantum fœta.

CYSTOTHECA Berk et C. in N. Pac. expl. p. 130. — Perithecia globosa, e floccis rigidis brunneis oriunda. Ascus unicus, sacculo hexagono-celluloso circumdatus. — Genus pulchérrimum *Pisomyxæ*, etc. affine, foliis innascens.

1. **Cystotheca Wrightii** B. et C. in N. Pac. exp. p. 130, n. 172. — 322
Pelliculas tenues fusco-cinnamomeas, hypophyllas sistens; peritheciis globosis, 60–70 μ. diam., monoascis; sacculo hexageno-parenchymatico ascum includente; sporidiis..... imperfectis observatis.

Hab. in reg. Pacifico-boreali in foliis.

Subfam. 3. **Capnodieæ** Sacc.

Biogenæ. Perithecia verticaliter elongata, simplicia v. ramosa, clavata v. cylindrica, obtusa v. acuta, vertice plerumque laciniatim dehiscentia, mycelio nigro crasso facile secedente innata.

Clavis generum.

Capnodium. Perithecia subiculo crustaceo insidentia. Sporidia (in speciebus typicis) muriformia, fusca, ovoidea.

Generis sectiones adinterim propositæ:

I. *Eucapnodium;* ascis 6-8-sporis, sporidiis muralibus fuscis.
II. *Capnodiella;* ascis 8-sporis, sporidiis continuis, globosis.
III. *Capnodaria;* ascis 10-sporis, sporidiis 3-4-septatis, raro muriformibus, fuscis.
IV. Ascis ignotis; sporis fenestratis.
V. Ascis ignotis; sporis 2-5-septatis.
VI. Ascis ignotis; sporis 1-septatis.
VII. Ascis ignotis; sporis continuis v. ignotis.
VIII. *Microxyphium;* ascis ignotis; peritheciis subulatis.

APPENDIX

Antennaria; ut Capnodium, sed perithecia minora, lateralia, aspora; verisimiliter status infans Capnodii.

Scorias. Perithecia subiculo spongioso scoriaceo insidentia, clavato-pyriformia. Sporidia 3-septata, hyalina, fusoidea.

CAPNODIUM Mont. Ann. Sc. nat. 3. XI, p. 233 (1848) (Etym. *Capnos*, fumus). *Fumago* Tul. Sel. Fung. Carp. II, p. 279. — Mycelium effusum, folia et ramos ambiens, atrum. Perithecia subcarnosa v. carbonacea, nunc simplicia, nunc ramosa, verticaliter elongata, sessilia vel in basim angustatam, vertice sæpius laciniatim dehiscentia; asci obovoideo-oblongati; sporidia octona, ovoideo-oblonga, typice 3-4-septata accedente septulo longitudinali, fuscæ.

Obs. Genus imperfecte notum, valde polymorphum, cujus specierum plurium fructificatio ascophora nondum innotuit. — Species perithecio sphærico ad *Meliolam* duxi. *Antennarias*, ut formas imperfecte evolutas *Capnodii* in calcem addidi.

I. *Eucapnodium.* Species typicæ, ascophoræ, sporidiis fenestratis.

1. **Capnodium salicinum** Mont. Syll. Crypt. n. 915 et in B. et Desm., J. 323
Hort. Lon. IV. p. 251, f. 4, et Ann. Scienc. nat., 3, XII, p. 302. — Epiphyllum et epicladon; perithecio carnoso e clavato corniformi interdum ramo divaricato apice furcato, vertice fimbriato; thalli floc-

cis cylindricis atro-fuscis varie ramosis, æqualiter breviterque septatis, articulis longitudine diametrum superantibus; ascis obovoideo-clavæformibus, subsessilibus, 40–45 ≃ 24, paraphysibus ramosis obvallatis, sporidiis oblongis transversim triseptatis tandem fuscis cellulosis (muriformibus), 16–23 ≃ 7–9, ad septa constrictis, sæpius senis.

Hab. in foliis ramulisque Salicis capreæ, auritæ, cinereæ, vitellinæ, viminalis etc. Populi nigræ in Britannia, Helvetia, Gallia, Lusitania, Italia, Germania, Fennia, Austria, Belgio etc. socio statu conidiophoro (*Fumago vagans* Pers.) — *Cap. sphæroideum* Lacr., Kickx Fl. Fl. I. 373, sec. Tul., est forma caulicola (in Salice) peritheciis brevioribus, ascis octosporis.

2. **Capnodium australe** Mont. Syll. crypt. n. 916 et in B. et Desm., Journ. Hort. Lond. IV, (1849) p. 253, f. 9. — Involvens, velutinum; peridiis subdichotomis ut plurimum obtusis; mycelii fibris ramosis moniliformibus, articulis diametro brevioribus; ascis breve stipitatis, obovatis, 8-sporis; sporidiis ellipticis, 4-5-septato-muriformibus, non constrictis, fuscis. 324

Hab. in ramis Coniferarum, ad flumem Cycnorum (*Swan River*) in Australia (Drummond), in ramis Abietum in Italia, in foliis Taxi baccatæ in Gallia.

II. *Capnodiella:* sporidiis octonis, globulosis, continuis.

3. **Capnodium maximum** B. et C. Cuban Fungi n. 876. — Peritheciis elongatis nitidis nigris, setiformibus hic illic inflatis, apice capitulatis, e mycelio parco oriundis; ascis clavatis longe pedicellatis; sporidiis octonis globosis 5 μ. diam.; conidiis oblongis, sub-reniformibus. 325

Hab. in soris Polypodiorum, Cuba, Januario, Februario. — Asci videntur infixi ubi perithecia inflata sunt. — Habitus fere *Sphærostilbis.*

III. *Capnodaria:* sporidiis sexdenis, septatis.

4. **Capnodium Tiliæ** (Fuck.) Sacc. *Fumago Tiliæ* Fuck. Symb. p. 142 *Capnodium Persoonii* pl. auct. nec Berk. et Demaz. — Mycelio effuso subcrustaceo nigro; peritheciis minutis, gregariis, conico-obtusis, atris, non ramosis; ascis stipitatis, 16sporis, ovatis, 32 ≃ 16–18; sporidiis farctis, 14 ≃ 7, oblongis, utrinque obtusis, fuscis, 3–4 septatis, septo longitudinali. 326

Hab. in ramulis corticatis Tiliæ europeæ et ulmifoliæ,

rarius, Biebrich (Germania), Coimbra (Lusitania). — An *Meliola* (e sect. *Pleomeliolæ*)?

IV. Asci ignoti; sporidia fenestrata.

5. **Capnodium Araucariæ** Thuem. Contr. Myc. Lus. n. 311. — Ramulos et folia tota occupans et involvens crustaque solubili, membranacea, aterrima obducens; mycelio ex hyphis longissimis, simplicibus, subrectis vel minime curvatis multi- brevissimeque articulatis, fere moniliformibus, fuscis composito; sporidiis diversis, maturis clavatis, utrinque rotundatis, multicellularibus, spadiceis, ad septa constrictulis, 16 μ. long., 7-9 μ. crass. 327

Hab. in Araucariæ excelsæ ramulis foliisque vivis, Coimbra in horto botanico (Moller). — *Obs.* Probabiliter fungus conidiophorus *Capnodii australis* Mont. Sylloge plant. cryptog. p. 257.

6. **Capnodium Crouanii** Mont. Pl. cell. Cent. VIII. p. 147, n. 44, et Cr. Fl. Finist. p. 21. — Epiphyllum, maculare; peritheciis carnosis, sphæricis, $^1/_6$-$^1/_3$ mill. d. centro tandem ruptis, ambitu basi pauciciliatis; mycelii floccis variis ramosis, subhyalinis et fuligineis, articulatis reticulum densiusculum formantibus; ascis..... sporidiis oblongis, 3-septato-muriformibus. 328

Hab. ad paginam sup. foliorum Salicis capreæ, Brest (Gallia). — Potius e subg. *Pleomeliola* generis *Meliolæ*, ob perithecia sphæroidea.

7. **Capnodium elongatum** Berk et Desm., Berk. Moulds referred Fumago, p. 251, fig. 5 (1849). — Setosum; peritheciis elongatis acuminatis utplurimum simplicibus apice fimbriatis; ascis..... sporidiis 2-3-septatis, articulis demum constrictis quandoque longitudinaliter divisis. 329

Hab. in foliis Persicæ, Smilacis, Populi, Liriodendri, Pyri, Bignoniæ, Tussilaginis etc. in Europa et Amer. bor..

8. **Capnodium Pini** B. et C. North Am. Fungi n. 982. — Mycelio laxo, floccis in perithecia repentibus et cum iis conjunctis; ascis.....; sporidiis oblongis quadriseptatis quandoque verticaliter divisis. 330

Hab. in cortice Pini, Maine, Amer. bor.

9. **Capnodium Schweinitzii** Berk. et Desm., Berk. Moulds referred Fumago, fig. 3. *Dematium Fuligo* Schw. p. p. — Velutinum; floccis subcylindricis; peritheciis subsimplicibus, elongatis, lævibus; ascis..... sporidiis obovatis celluloso-muriformibus, ad septa vix constrictis. 331

Hab. in foliis herbarum Pensylvania (Schweinitz).

V. Asci ignoti; sporidia 2-5-septata.

10. **Capnodium Mesnierianum** Thüm. Myc. un. n. 1281. — Paginam superiorem foliorum, plus minusve crusta solubili crassa, atra consistente obducens; mycelio toruloideo, articulis plus minus globosis, 6–11 μ. diam., concatenatis, fuscis; hyphis erectis; ascis..... sporis fusiformibus, utrinque acutatis, quadriseptatis, hyalinis, 14–16 ≃ 3.5–4, quandoque immixtis sporidiis bicellularibus, ovoideis utrinque rotundo-obtusatis, fuscis. 332

Hab. Lusitania, Coimbra in horto publico ad Hakeæ salignæ folia viva, 1877 (P. G. Mesnier).

11. **Capnodium caroliniense** Berk. et Desm., Berk. moulds referred Fumago p. 12, fig. 7 (1849). — Sparsum, setosum; mycelio parco; peritheciis laxis ramosis, lateralibus elongatis lageniformibus; ascis..... sporidiis oblongis bi-triseptatis. 333

Hab. in pag. inf. foliorum Quercus obtusilobæ in Carolina austr. (Curtis).

12. **Capnodium expansum** Berk. et Desm., Berk. moulds referred Fumago p. 12, fig. 8 (1849). — Late expansum velutinum; peritheciis conicis brevibus connatis sæpe filamentis brevibus liberis moniliformibus obsitis; ascis..... sporidiis tri-septatis, oblongis, curvulis. 334

Hab. in cortice Aceris nigri, quem latissime strato velutino nigro obducit, Ohio, Amer. bor. (Hooker).

13. **Capnodium Thuemenii** Sacc. *Capnodium Fuligo* Thuem. Symb. mycol. Austral. II, n. 103, nec Berk. — Acervulis epiphyllis, maculas indeterminatas, expansas, magnas, atras formans; ascis.....; sporis elongato-ovalibus vel ovato-clavatis, rectis, raro paucicurvatis, apicibus utrinque rotundatis, quadri- raro triseptatis, ad septa non constrictis, 12–14 ≃ 5, fuligineis; hyphis paucis, brevibus arcuatis, ramosulis, dilute fuscis. 335

Hab. in foliis vivis cujusdam Fici, Nova Guinea (Australia). Comm. Ferd. Müller.

14. **Capnodium Loniceræ** (Fuck.) Sacc. *F. Loniceræ* Fuck. Symb. myc. p. 143. F. rh. 1829. — Cæspitibus effusis, densis, velutinis, atris, e cellulis concatenatis, digitato-iterato-ramosis contextis, cellulis (conidiis) ovatis, oblongis obovatisve, simplicibus didymisve, atro-fuscis seu omnino obscuris, singulis 24–28 ≃ 10; ascis?; sporidiis oblongis, 3septatis, fuscis, 16 ≃ 4. 336

Hab. in cortice ramulorum adhuc viventium Loniceræ Xylostei, autumno, in Germania et Italia.

VI. Asci ignoti; sporidia 1-septata.

15. **Capnodium rhamnicolum** Rabh. Fungi Eur. n. 666. Hedw. 1864, p. 73. — Mycelio, moniliformi, vage ramoso; peritheciis brevibus e basi dilatata subconicis; ascis..... sporidiis elliptico-oblongis, hyalinis, uniseptatis. 337

Hab. in foliis Rhamni in Germania.

16. **Capnodium Fuligo** Berk. et Desm. Moulds referred Fumago p. 9, fig. 2. (1849). — Mycelio crassiusculo, compacto a matrice secernibili, nigro; peritheciis conico-cylindricis nigris floccis processibusque ostioliformibus exasperatis; ascis.....; sporidiis minoribus, ovato-oblongis, subinde spurie uniseptatis, subhyalinis. 338

Hab. in foliis Uvariæ trilobæ, plerumque in pag. superiore, Ohio, et in foliis plantarum variarum Pensylvania, Amer. bor.

17. **Capnodium mangiferum** C. et Broome Some Indian Fungi in Grev. IV. p. 117. — Effusum velutinum amphigenum; peritheciis ovatis pyriformibus vel lageniformibus, 75–80 μ. altis; ascis.....; sporidiis arcte ellipticis, hyalinis, uniseptatis, 12–15 μ. long. 339

Hab. in foliis Mangiferæ indicæ, Mysore, India. Fere absque dubio idem ac *Dimerosporium mangiferum* quod cfr.

18. **Capnodium lanosum** Cooke Indian Fungi in Grev. VIII. 96. — Late effusum, lanosum, atro-brunneum. Peritheciis simplicibus, vel ramosis, attenuatis, $^1/_3$ mill. altis, hinc illinc cæspitoso-fasciculatis; ascis..... sporidiis ellipticis, uniseptatis, hyalinis 16–18 = 8; hyphis ramosis, densissime intertextis, moniliformibus. 340

Hab. in foliis Fici, Belgaum (India); legit J. Hobson.

19. **Capnodium Nerii** Rabh. Fungi Eur. n. 662. Hedw. 1864, p. 73. — Mycelio moniliformi ramoso-reticulato, Capnodii Citri simillimo; peritheciis elongatis, subconicis; ascis..... sporidiis oblongis uniseptatis. — St. spermogonicus (*Apiosporium fœdum* Sacc.). Hyphis intricatis, ramosis, repentibus, septatis, fuligineis, hinc inde coalescendo dilatationes cellulares irregulares formantibus, crustasque latas, atras, facile secedentes efficientibus; conidiis hinc inde inspersis ovoideo-fusoideis, 1–3-septatis, cladosporioideis; peritheciis ex hyphis oriundis globoso-depressis, 50 micr. diam., astomis, vertice laciniatim dehiscentibus, contextu minute parenchymatico, fuligineo; ascis..... sporidiis (?) sphæroideis 3–4 micr. diam., hyalinis, 1-guttulatis. 341

Hab. in pagina superiore et inf. foliorum ramulisque vivis junioribus Nerii Oleandri, in Lusitania, Italia, Austria, Amer. bor.

20. **Capnodium ilicinum** Thüm. in Mycotheca universali n. 1846. — 342
Mycelio in foliorum pagina superiore crustas secedentes crassas, v. disjunctas, atras, in pagina inferiore cæspitulos tenuissimos efficiente; hyphis multiarticulatis, ramosis, flexuoso-erectis, articulis moniliformibus, fumigatis; sporidiis diversis; nunc globosis 4 μ. diam., nunc oblongis uniseptatisve, 5–7 ≃ 4, nunc ellipsoideis, 5 ≃ 2.5 dilute griseo-fuscis. Asci nondum inventi.

Hab. Græcia, Athenis, in foliis vivis Quercus Ilicis L. vere 1877. (DE HELDREICH).

VII. Asci ignoti; sporidia (spermatia?) continua v. ignota.

21. **Capnodium Cesatii** Mont. in litt. ad cl. baronem *Cesatium* et Syll. 343
Crypt. n. 917. — Epicladon; perithecio simplici corniformi; fertili apice incrassato, fusiformi ostiolato; thalli floccis in telam secedentem contextis; ascis nullis inventis, sporidiis madore evacuatis oblongis continuis hyalinis, 7–8 μ. longis.

Hab. ad ramellos novellos Alni glutinosæ, Vercellis (Italia) primo vere (CESATI), in agro Veneto (SACC.). — *Capnodio Citri* affine, præsertim quoad rationem fructificationis, a quo tamen forma tam perithecii quam retis floccorum thalli recedit.

22. **Capnodium axillatum** Cooke Hedw. 1878, p. 40. — Atrum, velu- 344
tinum in axillis nervorum situm; peritheciis elongatis setiformibus, sursum attenuatis; mycelio moniliformi.

Hab. in nervis foliorum Catalpæ cordifoliæ, Carol. austr. (RAVENEL).

23. **Capnodium Eugeniarum** Cooke Ind. Fungi in Grev. VIII. 96. — Effu- 345
sum, fuliginoso-atrum, subpelliculosum; peritheciis simplicibus, ventricosis, sub-rectis, 150 μ. altis, in subiculo membranaceo hinc illinc pelliculoso insidentibus; (sporidiis ignotis).

Hab. in foliis Jambosæ vulgaris, Belgaum (India) ubi legit J. HOBSON.

24. **Capnodium Citri** Berk. et Desm. Berk. Moulds referred Fumago 346
p. 11, (1849). Cattaneo Miceti Agr. p. 25. — Sparsum, setosum vix adhærens; peritheciis elongatis, raro bifurcatis; mycelio ramoso moniliformi pulcherrime reticulato; ascis ..... spermatiis oblongis minutis, hyalinis. — Sec. Catt. et Penzig hæc species sisteret spermogonium *Meliolæ Citri* et *M. Cameliæ*.

Hab. in foliis ramulisque Citrorum in Gallia, Hispania, Lusitania, Italia, California, Georgia. — Perithecia prælonga, sæpe fusoidea, $^1/_3$ mill. alta; sporidia ..... spermatia 7 μ. longa. — Var.

fructigena Thum. mycelio tenuissimo griseo-fusco. In fructibus maturis Citri Aurantii, Coimbra (Lusitania).

25. **Capnodium Persoonii** Berk. et Desm. Berk. moulds refer. Fumago p. 11, fig. 6 (1849). *Polychæton Avellanæ* Desm. — Setosum; peritheciis confertis, subramosis quandoque irregularibus; mycelio moniliformi; articulis sæpe oblongis, uniseptatis. 347

Hab. in foliis Coryli Avellanæ in Gallia. — Sporidia imperfecte cognita.

26. **Capnodium quercinum** (Pers,) Berk. et Desm. Berk. Moulds referred Fumago, p. 11, 1849. — *Polychæton quercinum* Pers. Valde compactum crassum; peritheciis fasciculatis ramosis, strato exteriori transverse secedente; mycelio parco, articulis vix constrictis. Forma conidiophora *Coniothecium quercinum* sistens: conidiis varie conglomeratis, septatisque, crassiuscule tunicatis, fuligineis, loculis singulis angulosis 6–10 micr. diam., maculas minutas confluentesque atras formantibus. — « *Coniothecium phyllogenum* Desm. loculis conidiorum minoribus cellulisque apicalibus mox liberatis, sphæroideis, eseptatis, subhyalinis, 6–7 μ. diam., differt. Ad hoc postremum spectare videtur *Capnodium ilicinum* Thuem. Herb. (in Quercu Ilice) ex Græcia ». 348

Hab. in pag. sup. foliorum Quercus pedunculatæ, Q. Ilicis, Q. obtusilobæ in Gallia, Lusitania, Italia, Austria, Amer. bor.

27. **Capnodium pelliculosum** B. et Rav. North Am. Fungi n. 981. — Floccis mycelii erectis apice trifidis, perithecio brevioribus; peritheciis elongatis subconstrictis. 349

Hab. in foliis Pruni Chickasse in Carol. inf. Amer. bor. — Hyphæ subinde apice trifidæ, *Triposporii* ad instar.

28. **Capnodium pomorum** B. et C. North Amer. Fungi n. 983. — Mycelio obsoleto; peritheciis lævibus, variis ovato-lanceolatis vel obovatis furcatisve pedicellatis, stipite cylindrico, atro. 350

Hab. in pomis putrescentibus, Carol. inf., Amer. bor.

VIII. *Microxyphium:* peritheciis subulatis; ascis ignotis.

29. **Capnodium Taxi** Sacc. et Roum. Michel. II. 322, ad int. — Hypophyllum, glomerulosum, olivaceo-fuscum, hyphis cladosporioideis, nodulosis, septatis, conidia fusoidea 22 × 8, 1–3-septata gerentibus; peritheciis bacillaribus, 500–600 × 40, basi leniter incrassatis, fuligineis, apice obtusiusculis, pallidioribus, ascis et ascosporis 351

Hab. in pagina inferiore foliorum Taxi baccatæ in horto *Massey* prope *Tarbes* (Gallia), hieme 1870.

30. **Capnodium Footii** Berk. et Desm. Moulds ref. Fumago p. 13, fig. 10. *Microxyphium Footii* Harw. — Mycelio maculiformi, setoso, nigro e filis subhyalinis et fuscis moniliformibus contexto; peritheciis setiformibus nigris, apice acutis, superficialibus, hyphis moniliformibus subhyalinis basi cinctis; ascis et sporidiis ignotis. 352

Hab. in foliis Fici, Cassines, Ilicis, Clerodendri, Evonymi, Mercurialis, Styracis, Elæagni, Cinnamomi etc. in Anglia, Lusitania, Italia, Austria, etc. — Perithecia quandoque erecto-ramosa, apice hyalino-fimbriata; spermatia ovoideo-oblonga, 2-guttulata, hyalina, 3-5 ≃ 2-2,2.

VIII. Species mihi minus notæ.

31. **Capnodium Corni** Auersw. in sched. et Kunze Fung. Helv. n. 94. 353
Hab. in foliis Corni sanguineæ in Germania, Austria et Helvetia.

32. **Capnodium Thwaitesii** Berk. Intr. Bot. Crypt. 274, fig. 63 a. 354

33. **Capnodium fibrosum** Berk. in Hook. Fl. Nov. Zel. II. 209. — Crassum, compactum; peritheciis elongatis rigidis, fasciculato-ramosis. 355
Hab. in corticibus in N. Zelandia (Colenso). — Format crustas setosas rigidas 8-10 mill. cr. Perithecia dense aggregata. — Sec. Cooke in litt. huc spectat *Meliola Palmæ* Schw. ex Surinam.

35. **Capnodium Lentisci** Thuem. herb. 356
Hab. in foliis Pistaciæ Lentisci, Athenis (Græcia) legit. Heldreich.

APPENDIX AD *CAPNODIUM*.

ANTENNARIA Link. in Schrad. Journ. III. 16. (Etym. ab *antenna*, quia conidia sæpe in antennas connexa). — Characteres *Capnodii* sed perithecia sæpius minuta, lateralia, non ascophora. Verisimiliter est status infans *Capnodii*.

1. **Antennaria pithyophila** Nees, Fr. S. Myc. III. 231. Sacc. Gen. Pyr. it. 17. — *Antennatula pinophila* Fr. — *Torula fuliginosa* Let. — Mycelio effuso compacto, scruposo-inæquabili, hispido, fuliginoso-atro, floccis moniliformibus, peridiis irregularibus basi adnatis «simplicibus v. ramosis, apicibus subtruncatis». 357

Hab. in ramis foliisque Abietis in umbrosis Alpium Italiæ, Germaniæ, Galliæ, Helvetiæ, Hispaniæ. — A ceteris omnino diversam speciem constituit mycelio dein crassiusculo subfuliginoso (licet flocci proprie atri), superficie valde inæquabili, hispido granulosoque, peridiis majoribus irregularibus inter bases floccorum in-

natis floccisque obtectis. — « An hujus *Capn. australe* Mont. status perfecte evolutus? ».

2. **Antennaria cytisophila** Fr. S. M. III. 237. Ab *Ant. pithyophila* distinguitur mycelio subleproso, sed perithecia non visa. 358

Hab. ad ramulos Cytisi incani in regione atlantica Galliæ (Guepin).

3. **Antennaria elæophila** Mont. Syll. Crypt. n. 1067 et Bullet. Soc. centr. d'Agric. Paris, 2. ser., IV, p. 767, et Ann., 3, XII, 304. — Epiphylla et epiclada, mycelio effuso crustoso velutino, aterrimo, secedente; fibris seu floccis æqualibus intricatis ramosis, articulis transversim oblongis, extremis submoniliformiter concatenatis; peritheciis evoideis lateraliter adfixis; sporis hyalinis, ovoideo-oblongis. 359

Hab. in foliis vivis ramisque Oleæ europeæ in Gallia, Lusitania, Italia. — Var. *Phillyreæ:* hyphis majoribus, septatis, apice catenulatis, 8–9 μ. cr. In foliis et ramulis Phillyreæ latifoliæ, Coimbra (Lusitania).

4. **Antennaria tropica** Mont. Syll. Crypt. n. 1065 et Cent. II, n. 67, l. c., p. 332. — Mycelio amplo, compacto, crasso, petiolos foliorum, ramulos truncosque arborum late investiente; floccis moniliformibus, articulis sphærico-suboblongis, fusco-nigris; peritheciis crassis e globoso elongatis. 360

Hab. in sylvis prope Cayennam (Leprieur).

5. **Antennaria Guava** Cooke Calif. Fungi in Grev. V. p. 110. — Effusa, epiphylla; floccis moniliformibus, ramosis; ad apicem attenuatis; sporangiis lageniformibus; mycelio tenuissimo. 361

Hab. in foliis Guavæ, California (Harkness). — Affinis *Ant. Robinsonii* Mont.

6. **Antennaria Robinsonii** B. et M., Mont. Syll. Crypt. n. 1066 et in Berk., Not. of Brazil. Fung., Lond. Journ. of Bot., II, t. 24, f. 2. *Cladosporium Fumago* var. *elongatum* Mont., Fl. J. Fern., n. 53. — Mycelio pannoso expanso; fibris tenuissimis elongatis ramosis, articulis æqualibus moniliformibusve; peritheciis aut lateralibus ovoideis aut in continuitate fibrarum oblongis. 362

Hab. ad folia præsertim Filicum in insulis Juan Fernandez (Bertero).

7. **Antennaria pannosa** Berk. Bot. Lond. Journ. 1843, n. 640, t. XXIII, fig. 1. — Mycelio pannoso expanso, floccis erectis rigidiusculis, primum moniliformibus, dein cylindricis ramosis, ramulis attenuatis subalternatis. 363

Hab. in foliis Pogopetali speciei, Chapada de N. S. d'Aba-

dia, prov. Goyaz, Brasilia. — Perithecia non visa, sed adesse censet cl. Berkeley.

8. **Antennaria scoriadea** Berk. Cryptog. antarct. p. 63. tab. LXVIII, fig. 111. — Spongiosa, floccis fasciculatis sursum lateraliter convexis, peritheciis subellipticis, irregularibus. 364

Hab. in ramis fruticum et arborum variarum, præsertim Dracophylli longifolii in insulis Auckland et Campbell et in N. Zelandia. — Flocci $^1/_4$-$^1/_2$ lin. longi, articulis moniliformibus v. (præsertim in filamentis ultimis) continuis levibus, nucleo globoso solitario. Perithecia elliptica « (an, ex icone, genuina?) ».

4. **Antennaria ericophila** Link. Sp. pl. V, p. 118, Fr. S. M. III, 230. — Mycelio amplissimo, crassissimo, compacto, floccis moniliformibus fusco-nigris; peritheciis inspersis adfixis globosis, 365

Hab. in truncis Ericæ arboreæ in Lusitania. — Densis cæspitibus, pollicem et ultra crassis caules et ramos late investit. Massam suberosam constituit, facile cultro discindendam, at firmam elasticam. Flocci (sub microsc. comp.) ramosi, valde implicati, articulis globosis; variat aliis floccis crassioribus, aliis multo tenuioribus; perithecia nigra inspersa, irregulariter globosa, cortice crasso friabili, intus sporulis moniliformibus solutis, quasi ramulis repleta.

10. **Antennaria semiovata** B. et Br. Ann. N. H. n. 784 Cooke Handb. n. 1878. — Mycelio denso, atro, pannoso folia obducente; hyphis fertilibus erectis, brevibus, ramosis, articulis torulosis; pycnidiis semiovatis; peritheciis curvatis, acuminatis. 366

Hab. in foliis Aspidii Filicis maris in Anglia.

11. **Antennaria Tela** Corda Icon. I, 23, t. VI, f. 290. — Effusa, crassa, coactilis, coffeacea, dein atro-fusca, solubilis; peridiis teretibus, depressis, rugulosis, dein laciniato-apertis; sporis globosis, albidis, hylo verruciformi notatis 40,5 μ.; floccis ramosis, conjugatis, ramulis ultimis adscendentibus, uncinato-incurvis, luteo-fuscis, pellucidis. 367

Hab. in caulibus putridis Ruborum prope Grottau, Bohemiæ.

12. **Antennaria lævigata** Corda Ic. I. 23, t. VI, f. 289. — Effusa, membranacea, lævigata, nitida, rufo-fusca, peridiis concoloribus, subglobosis subdepressis, lævibus; sporis ovatis luteo-fuscis, nucleo obscuriori 12,5 μ. floccis diaphanis, teretibus, fistulosis, dichotome ramosis, amœne fuscis. 368

Hab. in cortice Betulæ albæ ad Hammerstein prope Reichenberg,

13. **Antennaria cistophila** Fr. S. M. III, p. 230. — Mycelio in pul- 369

vinulos lævigatos æquabiles confluentes compacto, floccis moniliformibus nigris, peritheciis immersis globoso-depressis.

Hab. in caulibus Cistorum fruticosis in regione mediterranea Galliæ. — *A. ericophilæ* affinis, sed diversa videtur thallo tenuiori crassitiem dimidiæ unciæ haud attingente pulvinulos subhemisphæricos inter se tamen contiguos formante, superficie æquabili lævigata (nec hispida ut in aliis); massam stupposam sistente, difficile separandam; floccis magis ramosis, colore aterrimo, peritheciis thallo immersis obtectisque.

SCORIAS Fries, Syst. myc. III, 290, Mont. Syll. Crypt. p. 257 (Etym. a *scoria*, quia scoriam nigram refert). — Perithecia cornea, superficialia, e clavato pyriformia, obtusa acuminatave, sicca rigida fragilissima, humida mollia gelatinosa, omnia e fibris thalli composita; nucleus mucilaginosus, bibulus; asci obovoideo-clavæformes, crasse tunicati deorsum in stipitem attenuati, sporidia 4 foventes; sporidia fusiformia, hyalina 3-septata. Thallus (mycelium) tandem crassissimus, niger, opacus, spongiosus, persistens, e floccis subparallelis brunneis divergenti-ramosis inæqualiter articulatis muco concolori luxuriante obductis concretisque. — Mont., Ann., 3, XII, p. 303, cum observationibus. — Fries, Nov. Symb. Myc., p. 11, Berk. et Desm. Mould ref. *Fumago* (1849) p. 6 etc. 16 f. 1.

1. **Scorias spongiosa** (Schw.) Fr. S. M. III. 291. *Botrytis spongiosa* Schwein. — Char. generis. 370

Hab. in America bor., Carolina, Ohio etc. in ramis, truncis, radicibus Fagorum, nec alibi, vere, copiose. — Fungus admodum grandis, interdum duos pedes latus et longus, admodum rigidus et persistens, opacus, niger; superficie valde inæquabilis, e fibris magis condensatis solidior, quam basis fungi (quæ inter fibras rudes, gelatina exsiccata, discretas et materia cerino-grisea, humida gelatinosa obductas, cavernosa fit) fibrillis parallelis pellucidioribus in granula racemata abeuntibus obsessa.

REPERTORIUM

SPECIERUM PERISPORIACEARUM

SECUNDUM MATRICES *)

Obs. *E.* indicat Erysipheas, *P.* Perisporieas, *C.* Capnodieas.

Numeri progressioni continuæ specierum respondent.

Abies — *P.* 122. 133. 308. — *C.* 824. 357.
Acer — *E.* 27. 28. 29. — *P.* 260. 296. — *C.* 334.
Acrotrema — *P.* 200. 289.
Æsculus — *E.* 26. — *P.* 205.
Agave — *P.* 255.
Alisma — *P.* 265.
Alixia — *P.* 288.
Allium — *P.* 370.
Alnus — *E.* 13. 50. 75. 98. — *C.* 343.
Ambrosiaceæ — *E.* 92.
Ammophila — *P.* 188. 258.
Ampelopsis — *E.* 22.
Apargia — *E.* 11.
Andromeda — *E.* 50. — *P.* 166. 241.
Angelica — *E.* 67.
Antidesma — *P.* 194. 219.
Aplotaxis — *E.* 60.
Aralia — *P.* 276.
Araucaria — *C.* 327.
Arbutus — *P.* 196.
Aristotelia — *E.* 72.
Artemisia — *E.* 59.
Arundinaria — *P.* 314.
Arundo — *P.* 266.
Asparagus — *P.* 244.
Asperifoliaceæ — *E.* 66.
Asperugo — *E.* 66.
Aspidium — *C.* 366.
Aster — *E.* 95.
Astragalus — *E.* 41. — *P.* 207.
Atalantia — *P.* 285.
Azara — *P.* 227.

Baccharis — *P.* 195. 220. 238.
Ballota — *E.* 110.
Barosma — *P.* 305.
Berberis — *E.* 47.
Betula — *E.* 13. 20. 48. 50. — *P.* 269. — *C.* 368.
Bidens — *E.* 77.
Bignonia — *C.* 329.
Boletus — *E.* 16.
Borrago — *E.* 66.
Brassica — *P.* 134. 147.
Buddleya — *P.* 290. 309.
Buxus — *P.* 149.

Callicarpa — *P.* 287. 295.
Camelia — *P.* 183. 280.
Campanulaceæ — *E.* 61.
Capparis — *P.* 164.
Carlina — *E.* 60.
Carpinus — *E.* 13. — *P.* 233.
Cassine — *C.* 352.
Catalpa — *E.* 13. — *C.* 344.
Ceanothus — *E.* 90.

*) Matrices vagæ, e. g. humus, ligna, caules, folia etc. plantarum non definitarum consulto omittuntur.

Celastrus — *E.* 13. — *P.* 169. 223. 239. 240.
Celtis — *E.* 31. 32.
Cephalanthus — *E.* 39.
Cerinthe — *E.* 60.
Chærophyllum — *P.* 267.
Chelone — *E.* 82.
Chusquea — *P.* 190.
Cinnamomum — *P.* 302. — *C.* 352.
Cirsium — *E.* 60.
Cistus — *C.* 369.
Citrus — *P.* 280. 307. 312. — *C.* 346.
Cladium — *P.* 287.
Clematis — *P.* 285.
Clerodendron — *C.* 352.
Clusia — *P.* 172.
Coccoloba — *P.* 287.
Colchicum — *P.* 263.
Compositæ — *E.* 8. 61. 70.
Conceveibum — *P.* 225.
Coniferæ — *C.* 324.
Convolvulaceæ — *E.* 70. 73.
Cornus — *E.* 13. 44. 65. — *P.* 136. 233. — *C.* 352.
Coronilla — *P.* 207.
Corylus — *E.* 13. — *C.* 347.
Cratægus — *E.* 1. 13.
Crocus — *P.* 257.
Cruciferæ — *E.* 73.
Cucurbitaceæ — *E.* 8. — *P.* 217.
Cunonia — *P.* 301.
Cupressus — *P.* 175.
Curtisia — *P.* 315.
Cydonia — *E.* 87.
Cyperaceæ — *P.* 277.
Cytisus — *C.* 358.

Daucus — *E.* 79. — *P.* 207.
Desfontainia — *P.* 187.
Desmodium — *E.* 33. 42.
Desmonchus — *P.* 289.
Dipsaceæ — *E.* 70.
Dorycnium — *E.* 60.
Dracophyllum — *C.* 364.
Drymis — *P.* 229. 279.

Elæagnus — *C.* 352.
Epigæa — *E.* 85.
Epilobium — *E.* 10. — *P.* 204.
Erica — *C.* 365.
Erigeron — *E.* 11.
Erodium — *E.* 78.
Eryngium — *E.* 60.
Eucalyptus — *P.* 189.
Eugenia — *P.* 213.
Euphorbia — *E.* 49. 68. 71.
Evonymus — *E.* 38. — *C.* 352.

Fagus — *E.* 13. — *P.* 126. 272. — *C.* 370.
Ficus — *C.* 335. 340.
Filicaceæ — *C.* 362.
Fragaria — *P.* 261.
Fraxinus — *E.* 13.
Fuchsia — *P.* 107.

Galeopsis — *E.* 62.
Galium — *E.* 73.
Garrya — *P.* 287.
Geraniaceæ — *E.* 70.
Gerardia — *E.* 91.
Gleditschia — *E.* 53.
Graminaceæ — *E.* 74.
Guava — *C.* 361.
Guazuma — *P.* 200.

Hakea — *C.* 332.
Hamamelis — *E.* 5.
Heracleum — *E.* 67. — *P.* 267.
Heterothalamus — *P.* 185.
Hippobromus — *P.* 171.
Hypericaceæ — *E.* 73.
Hyptis — *P.* 224.

Iambosa — *P.* 222. — *C.* 345.
Iasminum — *P.* 200. 202.
Ilex — *P.* 126. 186. 199. — *C.* 352.
Inula — *E.* 60.
Iodina — *P.* 300.
Iridaceæ — *P.* 264.
Iuglans — *P.* 125.

Labiatæ — *E.* 61.
Lamium — *E.* 62.

Lappa — *E.* 64.
Lauraceæ — *P.* 182. 304.
Lecanora — *P.* 159.
Leguminosæ — *E.* 70. 73.
Ligustrum — *P.* 233.
Liriodendron — *E.* 83. — *C.* 329.
Lonicera — *E.* 13. 34. 50. 51. — *P.* 121. 233. — *C.* 336.
Lycium — *E.* 33.
Lycopsis — *E.* 66.

Mangifera — *P.* 236. — *C.* 229.
Magnolia — *P.* 216. 287.
Melampyrum — *P.* 140.
Melastoma — *P.* 168. 226.
Menispermaceæ — *P.* 184.
Menispermum — *E.* 57.
Mercurialis — *C.* 352.
Mespilus — *E.* 13.
Metrosideros — *P.* 180.
Morus — *E.* 25. — *P.* 306.
Myrsine — *P.* 284.
Myrtus — *P.* 220.

Nerium — *C.* 341.
Nyssa — *E.* 14.

Olea — *P.* 176. — *C.* 359.
Olinia — *P.* 163.
Olyra — *P.* 243.
Onograriaceæ — *E.* 70.
Onosma — *E.* 66.
Opuntia — *P.* 251.
Oryza — *P.* 114.
Oxalis — *E.* 43.
Oxyridocarpus — *P.* 282.
Oxyris — *P.* 301.

Palicoureæ — *P.* 317.
Palmaceæ — *P.* 131.
Passiflora — *P.* 162. 170.
Pavetta — *P.* 200.
Peperomia — *P.* 192.
Persea — *P.* 287.
Persica — *C.* 329.
Phillyrea — *E.* 27. — *C.* 359.
Phlox — *E.* 84.
Phlomis — *E.* 63.
Pinus — *P.* 146. 158. 311. — *C.* 330.
Piper — *P.* 198. 215. 285.
Pistacia — *P.* 257. — *C.* 356.
Plantaginaceæ — *E.* 8. 61.
Plantago — *P.* 143.
Platanus — *E.* 55.
Plectranthus — *P.* 278.
Plectronia — *P.* 118.
Pleurostylia — *P.* 212.
Pogopetalum — *C.* 363.
Polygonaceæ — *E.* 70.
Polypodium — *C.* 325.
Populus — *E.* 20. 30. — *P.* 123. 127. 155. — *C.* 323. 329.
Prinos — *P.* 199. 200.
Prunus — *E.* 3. 23. 107. — *C.* 349.
Psidium — *P.* 287.
Psilostoma — *P.* 242.
Ptarmica — *E.* 60.
Pyrus — *E.* 13. — *P.* 141. — *C.* 329. 350.

Quercus — *E.* 35. 36. 45. 58. 88. 99. 100. — *P.* 123. 124. 125. 142. 153. 156. 248. 320. — *C.* 333. 342. 348.

Rhamnus — *E.* 37. 48. — *C.* 337.
Rhododendron — *P.* 128. 234. 235.
Rhus — *E.* 7.
Ribes — *E.* 12. 40.
Robinia — *P.* 112.
Rosa — *E.* 6.
Rosaceæ — *E.* 8.
Rottbœllia — *P.* 200.
Rubiaceæ — *P.* 286.
Rubus — *E.* 80. — *P.* 129. — *C.* 367.
Russula — *P.* 262.

Salacia — 287.
Salix — *E.* 4. 20. — *P.* 138. — *C.* 323. 328.
Sambucus — *E.* 40. 52.
Santalum — *P.* 173.
Sapindaceæ — *P.* 303.
Scabiosaceæ — *E.* 70.
Sclerochiton — *P.* 167.

Scrophulariaceæ — *E.* 8. 61. 70.
Secale — *P.* 144. 252.
Senecio — *P.* 160.
Silene — *P.* 206.
Smilax — *P.* 275. — *C.* 329.
Solanum — *P.* 208.
Sorbus — *E.* 9.
Spiræa — *E.* 54. 76.
Stachys — *E.* 62.
Styrax — *C.* 352.
Symphytum — *E.* 66.
Symplocos — *P.* 288.
Syringa — *E.* 48. 87.
Syzygium — *P.* 237.

Tanacetum — *E.* 11.
Taraxacum — *E.* 64.
Taxus — *P.* 324. — *C.* 351.
Terminalia — *P.* 287.
Tetracera — *P.* 310.
Tilia — *E.* 21. — *C.* 326.
Tragopogon — *P.* 271.
Tussilago — *C.* 329.
Typhaceæ — *P.* 246.

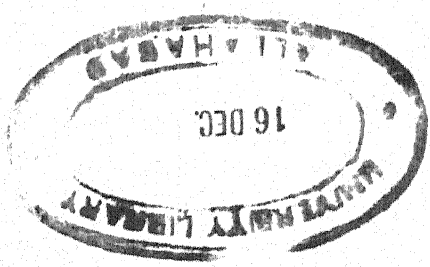
Ulmus — *E.* 17. 19. — *P.* 132.
Umbelliferæ — *E.* 73.
Urania — *P.* 291.
Urticaceæ — *E.* 8. 70. 73.
Uvaria — *C.* 338.

Vaccinium — *E.* 2. 46. 85. — *P.* 48.
Valerianaceæ — *E.* 70.
Verbena — *E.* 93.
Viburnum — *E.* 35. 50. 86.
Vitis — *E.* 24. 81. 89.

Weinmannia — *P.* 281.

Zea — *P.* 254.

Xanthium — *E.* 64. 69.



Fam. 2. **Sphæriaceæ** Fr. Summa V. S. p. 381 p. p.

Ces. et De Not. Schema Sfer. p. 196 p. p., Sacc. in Michelia.

Simplices v. compositæ. Perithecia membranacea, coriacea v. carbonacea a stromatis substantia (ubi stroma adest) heterogenea, nigricantia, ostiolo rotundo dehiscentia. — A familia sensu Auctorum aufero *Lophiostomaceas, Dothideaceas, Microthyriaceas, Camilleaceas, Hypocreaceas,* quas conferas.

Sect. 1. **Allantosporæ** Sacc.

Sporidia continua, cylindrica, utrinque obtusiuscula (allantoidea v. botuliformia) curvula, hyalina v. olivascentia.

Clavis analytica generum.

A) Simplices v. cæspitosæ.

a) Ostiolum centrale brevissimum.

1. Asci octospori.

† Tectæ.

Massalongiella. Perithecia minuta, glabra, membranacea.

Enchnoa. Perithecia majuscula, strigoso-pilosa.

†† Subsuperficiales.

Cœlosphæria. Perithecia acervata, globosa dein cupuliformia.

2. Asci polyspori.

Fracchiœa. Perithecia cæspitosa v. sparsa, non cupularia.

b) Ostiolum laterale conicum.

Pleurostoma. Perithecia superficialia; asci myriospori.

B) Compositæ, stromaticæ.

a) Perithecia sub peridermio relaxato sublibera.

Calosphæria. Asci octospori; ostiolum breve v. longum.

Coronophora. Asci polyspori; ostiolum brevissimum.

b) Perithecia cortice v. ligno immersa.

1. Stroma e matrice mutata formatum.

† Stroma valseum (peritheciis in circulum aggregatis).

§ Asci 4-8-spori.

Quaternaria. Perithecia quaterna v. pauca; asci stipitati.

Valsa. Perithecia copiosiora, circinantia v. monosticha; asci subsessiles; ostiola integra.

a) Euvalsa. Stroma in cortice non nigrolimitatum.

b) Leucostoma. Stroma in cortice nigrolimitatum.

(*Cytospora.* Perithecia *Valsæ;* sporidia allantoidea, sed longissima ascum subæquantia. Vide inter *Scolecosporas*).

Eutypella. Perithecia copiosiora, monosticha v. polysticha; asci stipitati; ostiola sulcata; stroma corticale v. ligneum, nigrolimitatum.

§§ Asci polyspori.

Valsella. Perithecia corticola, valsiformiter aggregata.

†† Stroma late et indefinite effusum (eutypeum).

§ Asci octospori.

Eutypa. Stroma manifestum corticale v. ligneum; ostiola parva; sporidia subhyalina.

Endoxyla. Stroma obsoletum ligneum; ostiola majuscula; sporidia fuscidula.

Cryptosphæria. Stroma obsoletum, corticale; ostiola parva; sporidia subhyalina.

§§ Asci polyspori.

Cryptosphærella. Ut Cryptosphæria sed asci polyspori.

Cryptovalsa. Ut Eutypa sed asci polyspori.

2. Stroma a matricis substantia heterogeneum.

Diatrype. Stroma effusum v. disciforme; asci octospori.

Diatrypella. Stroma verruciforme; asci polyspori.

MASSALONGIELLA Speg. F. Arg. I, p, 180 (Etym. a cl. prof. *C. Massalongo).* — Perithecia sparsa, minuta, epidermide tecta, eaque secedente quandoque libera, lenticulari-globosa, ostiolo minuto pertusa; asci cylindraceo-subfusiformes, octospori; sporidia allantoidea, utrinque guttulata, hyalina. — Species caulicola.

1. **Massalongiella Bonariensis** Speg. l. cit. — Peritheciis sparsis 300–500 μ. diam. globoso-lenticularibus, primo tectis dein, epidermide secedente, liberis, ostiolo minuto, pertuso, donatis, contextu membranaceo, densiuscule parenchymatico, atro-olivaceo; ascis cylindraceo-fusoideis, sursum obtuse rotundatis, quandoque subtruncatis, deorsum in pedicellum desinentibus, part. sporif. 90–100 ≃ 10–12, pedicello 30 ≃ 5, aparaphysatis, octosporis; sporidiis cylindraceis, utrinque obtusiusculis, curvulis, (allantoideis), hyalinis, 20–24 ≃ 4–5, utrinque guttulatis. 371

Hab. in caulibus dejectis putr. Jussiææ longifoliæ in palud. secus Rio de la Plata a la Recoleta, Febr. 1880 (Amer. bor.).

ENCHNOA Fr. Summa V. S. p. 410 (Etym. *en.* in et *chnoos,* lanugo). — Perithecia sparsa vel gregaria, cortice tecta, tomento denso, fusco undique obsessa vel insidentia, tenuissima, fragilia, vertice punctiformi peridermium connatum perforante. Asci cylindraceo-clavati. Sporidia octona, botuliformia, guttulata hyalina vel olivacea. — Ramicolæ.

1. **Enchnoa infernalis** (Kunze et Fr.) Fuck. Symb. myc. 302. F. it. t. 470. *Sphæria infernalis* Fr. S. M. II, 371. *S. Glis* Berk. et Br. — Tecta, subemergens, stromate effuso, floccoso-strigoso, fusco-nigro, obvolvente perithecia globosa tenuia collabascentia, ostio- 372

lis obsoletis; ascis clavatis, paraphysatis, longe stipitatis, 8sporis, 100–120 ≃ 12–16, p. s., 60 μ. long.; sporidiis distichis v. conglomeratis, cylindraceis, curvatis, utrinque introrsum acutiusculis, continuis, guttulatis, pallide olivaceis, 20–24 ≃ 5.

Hab. in ramis dejectis corticatis Quercus pedunculatæ in Germania, Helvetia, Britannia, Italia. — Nascitur supra corticem interiorem, nec huic immersa, epidermide bullato-prominente tecta, indeterminata. Perithecia majuscula, gregaria, valde tenuia, absque ostiolis distinctis, tamen epidermidem perforant, quæ inde luci obversa minute pertusa.

2. **Enchnoa floccosa** (Fr.?) Karst. Symb. Fenn. IV, 187. — Perithe- 373
ciis sparsis aut confertis, interdum seriatim aggregatis, ut videtur, primitus peridermio tectis, dein denudatis, sphæroideis, basi collapsis et glabris, tomento araneoso fusco vel umbrino obtectis, vix papillatis, lævibus, tenuibus, $^1/_5$–$^1/_3$ mill. diam.; ascis aparaphysatis, clavatis, ope jodi haud cærulescentibus, 30–36 ≃ 8–9; sporidiis, tristichis, elongatis vel cylindraceis, 2-guttulatis, curvulis, chlorino-hyalinis, 10–12 ≃ 2–2,5.

Hab. in ramulis vetustis Sambuci racemosæ in horto Mustialensi (Fennia) mense Aprili 1872 parcius. — Verisimiliter est *Sphæria floccosa* Fr. Syst. myc. II, p. 375. Perithecia speciminum fennicorum ligno, cortice orbato, insidentia, astoma, filamentis longis, articulatis, fuscis, 6–7 μ. crassis superne obsessa. — «Ab *E. Friesii* Fuck. sporidiis tristichis, tenuioribus differre videtur».

3. **Enchnoa lanata** Fr. S. V. S. p. 343 et 410. *Sphæria lanata.* Fr. 374
Syst. myc. II. 482. — Peritheciis tectis, liberis, globosis, lanatis, ferrugineo-fuscis, ostiolo erumpente nigro; ascis amplis, late ellipticis, difficillime diffluentibus, 8sporis; sporidiis cylindraceis, utrinque obtusis, curvatis, hyalinis, nucleo medio diviso, septum referente, 9 ≃ 3.

Hab. sub epidermide ramorum Betulæ albæ et pendulæ in Britannia, Scandinavia, Germania, Italia. — Perithecia nunc sparsa, nunc conferta subconfluentia, globosa v. globoso-collapsa, *maxima*, tenuissima, undique tomento longo densissimo ferrugineo-fusco v. alius obscuri coloris lanata, ostiolo erumpente tenui cum epidermide connato, quare illa avulsa secedit, sed vere circumscissa non est. In ætate juniore sistit globulos pellucidos fluxiles in tomento expanso; gelatina albida, copiosissima. — Var. *Notarisii;* sporidiis majoribus, 14–15 ≃ 4, hyalino-luteolis. In ramis Cerasi in Italia boreali.

4. **Enchnoa Friesii** Fuck. Symb. myc. p. 151. — Peritheciis sub epi- 375
dermide nidulantibus, circinatis, tomento fusco insidentibus, peritheciis ipsis glabris, minutis, subglobosis, nitido-fuscis, demum obscurioribus, collis perithecio duplo longioribus, decumbentibus, concoloribus instructis, ostiolis in disco spurio, rimoso, tuberculoso, parum prominulis, partibus prominulis conicis, atris; ascis clavatis, 8sporis, 44 ≃ 7; sporidiis distichis, oblongo-cylindraceis, valde curvatis, utrinque obtusis, 3-4guttulatis, continuis, hyalinis, 12-14 ≃ 4.

Hab. sub epidermide ramorum Sambuci racemosæ, Œstrich (Rhenogovia), rara, socia *Massaria hirta.* — Sec. Fuck. certe differt ab *E. floccosa.*

5. **Enchnoa alniella** Karst. Mycol. Fenn. II. p. 198. — Peritheciis 37
sparsis vel sæpius gregatim stromate furfuraceo, fusco insidentibus peridermio tectis eique soluto non adhærentibus, fusco-atris, villo fusco undique obsessis, vertice punctiformibus sæpe peridermium leviter elevatum perforantibus, tenuissimis, fragilibus, latit. 0,3 μ.; ascis cylindraceo-clavatis, paraphysibus filiformibus obvallatis obtusis, 70-75 ≃ 13-15; sporidiis octonis, distichis, fusoideo-oblongatis, leviter curvulis, 6-guttulatis vel spurie tenuiter 3-septatis, hyalinis, 21-26 ≃ 6-8.

Hab. in ramulis Alni incanæ emortuis prope Mustiala (Fennia) mense Decembri. — Formam ejus conidiferam verisimiliter sistunt pulvinuli, per peridermium laciniatim fissum erumpentes, furfuracei, intus fusci, superne applanati, atrati, sæpe angulati, conidiis ellipsoideis, ovoideo-oblongatis vel subelongatis, simplicibus, hyalinis fœti.

CŒLOSPHÆRIA Sacc. Myc. Ven. spec. p. 115 (Etym. a *coilos*, concavus, quia perithecia dein cupuliformia fiunt) *Nitschkia* Otth, Fuck. Symb. myc. p. 165. — Perithecia cæpitosa vel gregaria, stromate nigro vel villo tenui candido insidentia, globosa dein typice cupuliformia, subastoma. Asci anguste clavati. Sporidia octona, botuliformia guttulata, hyalina. Rami- vel lignicolæ.

Obs. Nomen generis mutavi quia extet antiquis genus, nimis consonum, *Nitzschia*, inter Diatomaceas.

1. **Cœlosphæria cupularis** (Pers.) Karst. Symb. ad Myc. Fenn. 1879, 377
p. 42. *Sphæria cupularis* Pers. *Nitschkia Fuckelii* Nitschke in Fuck. Symb. myc. p. 165. *Cœl. Fuckelii* (Nke) Sacc. Myc. Ven. Spec. p. 115, t. XII, f. 1-2, F. ital. t. 480. — Peritheciis in acervulos subhemisphæricos aggregatis $^1/_3$-$^1/_2$ mill. diam., subglobosis,

regulosis, atris, dein collabescendo exsquisite cupiliformibus; ascis cylindraceo-clavatis, breviter stipulatis, 40–60 ≃ 9, paraphysibus filiformibus obvallatis, 8sporis; sporidiis distichis, botuliformibus, cylindraceis, curvatis, hyalinis quoque polo 1-guttulatis, 9–10 ≃ 2–3.

Hab. in ramis exsiccatis Gleditschiæ, Robininiæ, Ulmi, Aceris, Pruni, Carpini, Syringæ, Fraxini, Tiliæ etc. in tota fere Europa et Amer. boreali, socio quandoque spermogonio *Phomam Fuckelii* Sacc. sistente.

2. **Cœlosphæria tristis** (Pers.) Sacc. *S. tristis*, Pers. Syn. p. 87. — 378
Peritheciis confertis globosis rugulosis mox collapsis, astomis, nigris, subiculo strigoso insidentibus; ascis ovato-fusoideis, 30 ≃ 14, octosporis; sporidiis distichis, botuliformibus, 15–18 ≃ 2–2.3, utrinque obtusiusculis, vix curvatis, 3-guttulatis hyalinis.

Hab. in corticibus Coryli, Sambuci, Fagi, Viburni, in Britannia, Gallia, Germania, Algeria, Amer. bor. — Opaca, aterrima. Subiculum tenue, effusum, indeterminatum, contextum. Perithecia minuta, planiusculo-depressa, demumque concava, punctulis minimis rugulosa. — Var. β. *fusca*, peritheciis turgidis læviusculis, subiculo crassiusculo piloso-strigoso fusco semiimmersis. A. S. Lusat. p. 44. Ad ligna cariosa abiegna in Germania. Specie forsan distincta. Perithecia globosa aut subovata.

3. **Cœlosphæria exilis** (Alb. et Schw.) Sacc. *Sphæria exilis* Alb. et 379
Schw. *Nitschkia exilis* (Alb. et Schw.) Fuck. Symb. myc. p. 165. — Peritheciis gregariis, villo tenui candido effuso insidentibus, sphæroideo-depressis, deinde collapso-concavis seu pezizoideis, atris, pilis patulis, brevibus, acuminatis, concoloribus adspersis, minutissimis 150 μ. diam.; ascis anguste clavatis, 30–32 ≃ 4–5; sporidiis octonis oblique distichis vel subdistichis, elongatis sive cylindraceis, rectis vel leviter curvulis, guttulatis, hyalinis 4–8 ≃ 1 (Karsten), 10 ≃ 2 (Fuckel).

Hab. in acubus Pini, in ramis Rubi, Populi, Pruni, Quercus, Corni in ligno vetusto Betulæ, et Salicis in Fennia meridionali et media in Germania, Britannia, Amer. bor. — Pili perithecii inarticulati, acutati, 20–100 ≃ 3–5.

4. **Cœlosphæria acervata** Karst. Symb. Mycol. Fenn. 1879, p. 41. — 380
Peritheciis cæspitosis aggregatis, erumpentibus, coriaceo-carbonaceis, subsphæroideis, astomis, rubris, demum nigrescentibus vel subatris, collabascendo cupulæformibus; ascis cylindraceo-clavatis, 80 ≃ 10–12; sporidiis elongatis, rectis vel leniter curvulis, simplicibus, hyalinis, 8–12 ≃ 2; paraphysibus haud bene discretis.

Hab. in ramis aridis Pyri Mali, in Mustialia (Fennia) mense Aprili semel observata. — Cæspites plerumque orbiculares, per epidermidem erumpentes, stromate tenuiusculo, flavo, latit. 2–3 mill. Perithecia tandem dehiscentia, molliuscula, stromati manifesto, flavo dense acervatim insidentia. A *C. cupulari* (Pers.) et *C. tristi* (Pers.) Sacc. peritheciis lævibus, rubris, paullo majoribus, stromate flavo statim dignoscenda. Cum *Cucurbitaria acervata* Fuck. Symb. myc. p. 175 nihil commune habet. *C. acervata* Cook. Brit. Fung. II, p. 841 duas species spectat sec. syn. — «Auctoritate cl. Karstenii hoc loco retinui sed «perithecia rubra» potius Hypocreaceam designant».

5. **Cœlosphæria chiliopyxis** (B. et C.) Sacc. *Sphæria chiliopyxis* B. et C. North Amer. Fungi n. 906. — Minutissima, gregaria, nitida globosa; sporidiis hyalinis leviter allantoideis. 381

Hab. in lignis putridis in Carolina inf. (Amer. bor.).

6. **Cœlosphæria radicalis** (Cooke) Sacc. *Cucurbitaria radicalis* Cooke Grevill. VI, 51. — Pustulis variis, erumpentibus, valsoideis, prominulis; peritheciis atris, ovatis, papillatis, opacis; ascis clavatis; sporidiis linearibus, leniter curvulis, obtusis 8 μ. long. 382

Hab. in radicibus quercinis, Aiken, Carolina (Amer. bor.).

7. **Cœlosphæria subconnata** (B. et C.) Sacc. *Sphæria subconnata* B. et C. North Amer. Fungi n. 905. — Peritheciis hemisphæricis supra corticem sparsis, depressis, subconnatis; ascis clavatis farctis; sporidiis allantoideis. 383

Hab. in ramis Liquidambaris, Carolina Inf. (Amer. bor.)

FRACCHIÆA Sacc. Myc. Ven. Spec. p. 115 (Etym. a cl. *Josepho Fracchia* Tarvisino, 1797–1869, mycologiæ cultore). — Perithecia aggregata v. subsparsa, crustula stromatica insidentia, superficialia, globoso-umbilicata, verruculosa, coriaceo-carbonacea, atra. Asci clavati, polyspori. Sporidia allantoidea, subhyalina. — Species inter se admodum affines et nonnullæ ægre distinguendæ. — Ramicolæ.

1. **Fracchiæa heterogenea** Sacc. Myc. Ven. Spec. p. 115, tab. XII. f. 3–7. Fungi ital. t. 465. — Peritheciis aggregatis v. subsparsis, crustula stromatica insidentibus supra lignum v. corticem nascentibus e sphæroideo depressis, diam. $^1/_3$ mill., extus intusque atris, verruculosis, ostiolo minuto vix v. non prominulo, dein umbilicato; ascis elongato-clavatis, basi attenuatis, 70 = 12–14, polysporis, paraphysibus asco longioribus, guttulatis, jodi ope tantum conspicuis 384

(teste Speg.) obvallatis; sporidiis valseis cylindraceis curvatis utrinque rotundatis, 12 ≃ 2, 3-4-guttulatis, hyalinis, dense et polystiche stipatis. — Spermatia, in peritheciis junioribus ascophoris, minima cylindracea, hyalina, curvula, 3 ≃ 1/2, sterigmatibus filiformibus curvatis, 15 ≃ 1/2, suffulta.

Hab. in ramis corticatis decorticatisque exsiccatis Aceris campestris, Rhamni Frangulæ, Æsculi Hippocastani, Loniceræ Caprifolii, Buxi sempervirentis, Rubi fruticosi, Alni viridis in agro Tarvisino, Patavino, Bellunensi (Italia); ad ramos Paliuri in Gallia merid. (Fabre), Eucalypti Globuli in Amer. austr. (Spegazzini), vere, frequens. — Habitus Cœlosphæriæ, a qua ascis polysporis et peritheciis non tandem cupularibus differt. — Dixi *heterogeneam* ex eo quod peritheciorum fabrica ad *Cucurbitarias*, fructificatione vero ad *Valsas* accedit.

2. **Fracchiæa cucurbitarioides** Speg. Pug. 2, p. 21. — Peritheciis globosis superne subapplanatis, 1/4-1/3 mill. diam. glabris, atris; 4-9 cæspitoso-gregariis; ostiolo vix perspicuo; contextu coriaceo membranaceo vel subcarbonaceo, atro, ascis cylindraceo-clavatis, plus minusve rotundatis, deorsum in pedicellum breviusculum desinentibus, 80-85 ≃ 10, polysporis, aparaphysatis; sporidiis inordinatis, cylindraceo-allantoideis, utrinque rotundatis, 10 ≃ 2, granuloso-farctis, hyalinis. 385

Hab. in ligno putri decorticato Erythrinæ Crista-galli secus Rio de la Plata prope la Becoleta, Maj. 1880. — Videtur var. *Fracchieæ heterogeneæ*.

3. **?Fracchiæa brevibarbata** B. et C. North Am. Fungi n. 822. (Cucurbitaria). — Cæspitosa globosa, nec collapsa, minutissime tomentosa; ascis clavatis farctis; sporidiis allantoideis. 386

Hab. in Amer. bor. (sed nutrix et locus specialis desideratur).

4. **Fracchiæa moricarpa** Cooke in Grevill. VI. p. 51. (Gibbera). — Pustulis erumpentibus; peritheciis convexo-applanatis, atris, opacis, minute velutinis, demum subglabris; ascis late clavatis; sporidiis numerosis, linearibus, curvulis, obtusis 8-10 μ. long. 387

Hab. in ramis Myricæ, Darien, Georgia (Amer. bor.). — « An var. *F. heterogeneæ*? »

5. **Fracchiæa callista** B. et C. North Amer. Fungi n. 821. (Cucurbitaria). — Effusa, peritheciis in crusta fusca insidentibus, primum globosis, dein collapsis; sporidiis minutis allantoideis, copiosis. 388

Hab. in ramis Carpini in Amer. bor., Corni alternifoliæ, Buffalo, Sandlake, Amer. bor. (Clinton, Peck).

6. **Fracchiæa rasa** (Berk.) Sacc. *Sphæria* (cæspitosæ) *rasa* Berk. in 389
Fl. N. Zel. II. 205, tab. CVI, f. 5. — Conferta; peritheciis oblongis apice convexo obtuso liberis, ostiolo punctiformi, superficie opaca quasi rasa; ascis farctis cylindrico-clavatis, polysporis; sporidiis allantoideis, 5 μ. long.

Hab. in ramis putridis decorticatis Weinmanniæ in Nova Zelandia, River Manawatu (Colenso).

PLEUROSTOMA Tul. Sel. Carp. (Etym. *pleura*, latus et *stoma*). — Perithecia superficialia, membranacea, sphæroidea, ostiolo laterali, immo subhorizontali, papillato. Asci ovoidei, stipitibus ramulosis suffulti, myriospori. Sporidia botuliformia, tenuissima. Spermogonia nota. — Ad *Calosphærias* accedere videtur.

1. **Pleurostoma Candollei** Tul. l. c. *Sphæria latericollis* DC., Fr. S. 390
M. II. 464. — Gregaria, nigra; peritheciis emergentibus, sphæricis, levibus, ostiolo laterali, conico, rigido; ascis generis p. s. 40–50 ≃ 13–16, myriosporis; sporidiis allantoideis, minimis 3.5 μ. long. hyalinis.

Hab. in ligno quercino in Gallia. — Perithecia distincta sed in acervulos subcompressos collecta, glabra, demum emersa, cupuliformia.

CALOSPHÆRIA Tul. Sel. Carp. II. 108 (Etym. *calos*, pulcher et *sphæria*). — Perithecia cortice interiore adnata, nec immersa, peridermio tecta v. denique, eo secesso, libera, globosa v. ovoidea, in soros plerumque congregata v. subsolitaria, stromate vero obsoleto; ostiolo vario, brevissimo v. longissimo. Asci tereti-clavati, paraphysati, octospori. Sporidia botuliformia, hyalina. — Adsunt quandoque spermogonia. — Fungi minuti, corticolæ.

A) *Eucalosphæria:* peritheciis rostellatis.

a) Perithecia glabra.

1. **Calosphæria Princeps** Sel. Tul. Fung. Carp. II, p. 109, t. XIII, f. 17– 391
22. Sacc. F. ital. t. 476. — *Sphæria pulchella* Pers. — Peritheciis corticis interioris superficiei adnatis, liberis, in soros orbiculares, ovales v. ellipticos dense stipatis, globosis, glabris, nitidis; collis longissimis, decumbentibus, flexuosis, cylindricis ostiolisque per peridermii rimas, transversim directas erumpentibus ac plus minus exstantibus, obtusis, sejunctis instructis; ascis clavatis, longe ac tenuiter pedicellatis, octosporis, pseudoparaphysibus, simpli-

cibus, crassiusculis, unicellularibus longissime superatis, 18–26 ≃ 4 (p. sporif.); sporidiis laxe conglobatis, cylindricis, curvatis, hyalinis, 6 ≃ $1^1/_2$ («8–10 ≃ $1^1/_2$»).

Hab. intermixtis spermogoniis conico-cylindraceis, in cortice Pruni Cerasi et P. Avium in Britannia, Belgio, Gallia, Germania, Helvetia, Suecia, Italia, Amer. bor.

2. **Calosphæria ciliatula** (Fr.) Karst. Mycol. Fenn. II. 156 *Sphæria ciliatula* Fr. S. M. II. 406. — Peritheciis in soros obiculares vel oblongatos aggregatis, circinantibus, sphæroideis, glabris, lævibus, atris, collis decumbentibus, flexuosis, nunc longissimis (sæpe 10 mill. longitudine metientibus), capillaceis, acutissimis, nunc brevibus, per rimas peridermii vix emergentibus, obtusis; ascis cylindraceo-clavatis, breviter pedicellatis, 25–35 ≃ 4 (p. sporif.); sporidiis subdistichis, fusoideo-elongatis, rectis vel subrectis, hyalinis, 4–6 ≃ 1. 392

Hab. in cortice truncorum et ramorum Betulæ sub libro, et Aceris Pseudoplatani in Fennia, Suecia, Germania, Italia. — Var. *Oxyacanthæ* Sacc. F. ital. tab. 424. A typo differt ascis racemose aggregatis, longeque paraphysatis. In ramis Oxyacanthæ in sylva *Montello* aut. 1878 (Italia).

3. **Calosphæria pusilla** (Wablenb.) Karst. Myc. Fenn. II. 157. *Sphæria pusilla* Wahlenb. — *Cal. Wahlenbergii* Nits. Pyr. Germ. p. 92. *C. ciliatulæ* sat similis, differt vero sporidiis majoribus 8–12 ≃ 1,5 et sæpius curvulis, ascis majoribus 30–50 ≃ 5–6 (p. spor.), peritheciis paullo majoribus collisque vulgo brevioribus. 393

Hab. in cortice Betulæ in Lapponia, Gallia, Germania, Italia et Alni in Mustiala (Fennia). — *Sph. pusilla* Pers. quoque generi *Calosphæriæ* spectare mihi videtur.

4. **Calosphæria assecla** (Schw.) Sacc. *Sph.* (ceratostomeæ) *assecla* Schw. Syn. Am. bor. n. 1622. Berk North Am. Fungi pag. 182. — Minutissima, fusca; peritheciis globosis; ostiolo triplo longiori inclinato, pro ratione crassiusculo, tereti; ascis 50 μ. long.; sporidiis allantoideis 6–7 μ. longis. Catervis maximis dense aggregatis interdum semiuncialibus circumdat pustulas aliarum Sphæriarum. 394

Hab. semper in consortio et circum pustulas variarum Valsacearum sub epidermide Castaneæ in Amer. bor. — Vix unquam circinat, sed affinis est *C. pusillæ*.

5. **Calosphæria parasitica** Fuck. Symb. Myc. App. II. p. 41. — Peritheciis subglobosis seu pyriformibus, fuscis, lævibus, minutis, plerumque 3–8 subcircinantibus, decumbentibus, in *Quaternariæ* 395

Persoonii peritheciis adultis aut in superficie aut in interiori parte nidulantibus, collis diametro perithecii semel-ter longioribus, cylindraceis, aterrimis, subtilissime perforatis, exsertis, sæpe fasciculatis instructis; ascis oblongo-clavatis, antico obtusis, basi longe, tenuissime acuminatis, 8sporis, 24 = 5; sporidiis conglobatis in asci latiori parte, cylindraceis, continuis, curvatis, hyalinis, 5 = 1; pseudoparaphysibus longissimis, articulatis, 5-8 μ. crass.

Hab. in cortice interiore Fagi, prope Œstrich (Rhenogovia).

6. **Calosphæria corylina** Nits. Pyr. Germ. p. 95. — Peritheciis satis 396
numerosis (8–20), rarius paucioribus, in soros majusculos, ovales, corticis interioris superficiei, sub peridermio adnatos, nec immersos densissime sociatis, arcte inter se conjunctis, circinatim decumbentibus, peridermio, vix pustulato-elevato tectis, minutis, globosis, ex fusco nigricantibus, glabris, tandem collapsis, in collum plus minus elongatum, crassiusculum, medio sæpissime ventricoso-inflatum ac ut perithecia ipsa sæpe collabescens subito constrictis; ostiolis majusculis, rotundatis, tandem pertusis, in discum minutum, plerumque ellipticum, rarius suborbicularem collectis, per peridermii rimulas transversim directas erumpentibus; ascis anguste cuneiformi-clavatis, apice obtusissimis, fere truncatis, in pedicellum longe attenuatis, octosporis, 32–36 = 6–7 (p. sporif.), pseudoparaphysibus longissimis, continuis obvallatis; sporidiis subdistichis, cylindricis, curvatis, hyalinis, 10–12 = 2.

Hab. in ramis emortuis Coryli Avellanæ prope Münster (Germania).

7. **Calosphæria dryina** (Curr.) Nits. Pyr. Germ. p. 94. Sacc. F. ital. 397
tab. 477 (forma submutica). *Sphæria dryina* Curr. — Peritheciis globosis v. pyriformibus ex fusco tandem aterrimis, majusculis, in cæspites minutas collectis, subcircinantibus, sæpius solitariis, sparsis, decumbentibus, sub peridermio facile solubili liberis, cortici interiori tamquam afflatis, collis perithecii diametro brevioribus, raro nonnihil longioribus, apice obtusis, immo paullo incrassatis, peridermium poro minutissimo perforantibus instructis; ascis oblongo-clavatis, obtusis v. truncatis, subsessilibus, octosporis, pseudoparaphysibus simplicibus, septatis, 5–7 μ. crassis longissime superatis, 50–80 = 8–12; sporidiis in media v. superiore asci parte laxe conglobatis, cylindricis, valde incurvatis, hyalinis, 10–12 = $2^1/_2$–3.

Hab. in ramulis Quercus pedunculatæ in Britannia, Germania et Italia.

8. **Calosphæria microtheca** (C. et E.) Sacc. *Sphæria* (obtectæ) *mi-* 398

crotheca C. et E. Grevillea VI, p. 51, t. 80, fig. 14. — Peritheciis subgregariis; tectis, globosis, atris; collo elongato, flexuoso; ascis minutissimis, 25 ≃ 10, pyriformibus; sporidiis allantoideis minutissimis.

Hab. in ramis Andromedæ, New Jersey. Am. bor. — Perithecia ligno insidentia et peridermium tegens ostiolis elongatis perforantia; cortice secesso, subsuperficialia videntur.

9. **Calosphæria macrospora** Wint. Myk. in Hedw. 1873, p. 130. — 399
Peritheciis in soros orbiculares v. oblongos peridermio tectos dense stipatis, globosis, atris, glabris, circ. 500 μ. diam.; collis longissimis, 500–700 μ. long. flexuosis decumbentibus, apice obtusis, per peridermii rimas minutas vix emergentibus; ascis ventricoso-clavatis, longe pedicellatis, apice obtusis, tunicâ non incrassatâ, 8-sporis, 70–100 ≃ 19, paraphysibus longissimis filiformibus guttulatis obvallatis; sporidiis in asci parte sup. laxe conglobatis, allantoideis, curvis, 14–18 ≃ 3, hyalinis.

Hab. in ramulis Alni glutinosæ prope Lipsiam (Germania), — A *Cal. obvoluta* peritheciis glabris differt.

10. **Calosphæria cylindrica** (K. et C.) Sacc. *Sphæria* (Ceratostoma) 400
cylindrica Kalch. et Cooke. Grev. 1880, p. 29, tab. 137, fig. 28. — Sparsa; peritheciis globosis, atris, in cortice immersis; ostiolo elongato, cylindrico, tenui, flexuoso; ore fimbriato, erumpente 2 mill. long.; ascis clavatis 18 ≃ 8; sporidiis spermatioideis, hyalinis, curvulis, 3.5–4 μ. longis.

Hab. in ramis in Africa australi. — Adest circa perithecia subiculum brunneum, an proprium?

b) Perithecia villosula v. furfurella.

11. **Calosphæria tædiosa** Sacc. Mich. I. 368. Fungi ital. t. 479. — 401
Peritheciis in acervulos depresse conoideos, epidermide tumidula velatos hinc inde congregatis, globulosis, 1/3 mill. diam., nigris furfure corticali fulvo sæpe adspersis, tandem basi concavo-collabascentibus; ostiolis cylindraceis perithecium sub-æquantibus, in disculum minutum nigrum epidermidem perforantem oblique convergentibus; ascis clavatis, apice tunica crassa integra obtusis, truncatisque, basi breve sed acute attenuatis, 80–90 ≃ 14–16, paraphysibus crasse filiformibus, septatis asco duplo longioribus obvallatis; sporidiis octonis, di-tri-stichis, ægre maturescentibus, botuliformibus, curvis, utrinque rotundatis, 16–20 ≃ 2–3, granulosis, hya-

linis, corpusculis spermatioideis botuliformibus copiosissimis, perexilibus, 3–4 ≃ $^1/_2$–$^3/_4$, hyalinis undique obrutis.

Hab, in Alni incanæ et glutinosæ ramis emortuis *a Selva* et *Vittorio*, (Italia bor.) autumno, 1873–74, rarius. — Ob sporidia octona majuscula spermatiis obruta a speciebus a cl. Nitschkè, Fuckel et Karsten descriptis optime distinguenda. Forte *Cal. consobrina* Karst. Fenn. II. 158 huic magis affinis est, sed secundum descriptionem l. c. ascis duplo brevioribus, et tantum spermatiophoris recedit.

12. **Calosphæria villosa** Nits. Pyr. Germ. p. 98. — Peritheciis pau- 402
cis (4–6) in soris minutis orbicularibus, in cortice interiore omnino superficialibus dense sociatis, circinantibus, villo spisso, ex albido v. pallide flavido fuscescenti vestitis ac tamquam contextis, exiguis, globosis, in collum brevissimum attenuatis; soris plerumque dense sparsis, immo interdum continuis; raro peritheciis solitariis, concentricis; ostiolis cylindricis nec incrassatis, arcte inter se conjunctis et disculum minutissimum formantibus, peridermium nonnihil elevatum poro v. rimula minutissima perforantibus nec superantibus; ascis anguste clavatis, basin versus sensim attenuatis, sessilibus, octosporis, 56 ≃ 5–6 pseudoparaphysibus filiformibus, simplicibus v. ramosis, eseptatis, ascos longissime superantibus; sporidiis distinchis, cylindricis, curvatis v. subrectis, subhyalinis, 9–16 ≃ 2 raro crassioribus. — Conidia oriuntur in filamentis ramosis, quæ perithecia vestiunt, spermatiformia, tenuissime cylindrica, 3 μ. circ. longa.

Hab. in ramis emortius Carpini, Nienberge, prope Münster (Germania).

13. **Calosphæria aurata** Nits. Pyr. Germ. p. 99. *C. biformis* Tul. 403
Carp. II, 111 p. p. — Peritheciorum soris inordinate sparsis, suborbicularibus, plerumque minutis, in cortice interiore sessilibus, peridermio parum pustulato-elevato tectis; peritheciis in singulo soro 5–15, plus minus dense stipatis, nunc contra subsolitariis, omnino decumbentibus ac circinatis, minutis, globosis, atris, villo aureo vestitis, rigidis, rarius deplanatis v. collabascentibus, subito in collum tenue, cylindricum, perithecii diametrum plerumque longe superans attenuatis; ostiolis exiguis obtusis nec incrassatis, foramine angustissimo pertutis, in disculum minutissimum, ellipticum v. suborbicularem, planum v. concavum, peridermii rimula seu poro exceptum conjunctis; ascis anguste clavatis, basin versus sensim attenuatis, subsessilibus, octosporis, 48 ≃ 4–5; pseudoparaphysibus

filiformibus, 3 μ. circ. crassis, septatis, simplicibus v. basi ramosis, ascos superantibus obvallatis; sporidiis distichis, cylindricis, curvulis v. subrectis, subhyalinis, 8–10 ≃ $1^1/_2$–2.

Hab. in trunco emortuo Alni glutinosæ prope Münster (Germania) et in Gallia; in Betula alba in Rhenogovia.

14. **Calosphæria affinis** Nits. Pyr. germ. p. 98. — Peritheciorum soris cortici interiori impositis nec immersis, majusculis, ovalibus, peridermio avulso adhærentibus; peritheciis in singulo soro 10–15, inordinate ac densissime stipatis arcteque inter se conjunctis, symmetricis, globosis, atris, villo pallide flavido, adpresso tectis, collo tenui, brevi, cylindrico instructis, tandem collapsis; ostiolis rotundatis nec incrassatis, subjunctis, per peridermii rimas transversim directas erumpentibus, nec exsertis, poro minutissimo tandem apertis; ascis anguste clavatis, subsessilibus, octosporis, 40–48 ≃ 5; pseudoparaphysibus longissimis, simplicibus, tenuibus, filiformibus obvallatis; sporidiis in asci parte media v. superiore ordine subdisticho dispositis, cylindricis, subrectis, hyalinis, minutissimis 6–7 ≃ 1. 404

Hab. in ramis Betulæ albæ, Schwerin, Cappenberg Malmedy (Germania). — Var *laxior* Sacc. F. ital. t. 475; peritheciis laxioribus, sporidiis paulo crassioribus. — In ramis corticatis Quercus pedunculatæ in Italia boreali.

15. **Calosphæria obvoluta** Karst. Myc. Fenn. II. 156. — Peritheciis 8–16 in soros orbiculares mediocres dense stipatis, circinantibus, atris, villo fusco obductis tamquam contextis, sphæroideis, collis perithecii diametrum plerumque superantibus ostiolisque per peridermii rimas vel poros emergentibus, plus minus extantibus, plerumque 1 mill. longis, subæqualibus, decumbentibus, flexuosis, obtusis, hispidis instructis; ascis cylindraceis, 8-sporis, 62–72 ≃ 7 (p. sporif.); sporidiis monostichis, ellipsoideis vel oblongato-ellipsoideis, eguttulatis, chlorino-hyalinis, rectis, 8–11 ≃ 4–5. 405

Hab. in cortice truncorum Alni incanæ prope vicum Kytö in parœcia Tammela (Fennia) medio mensis Maji. — Sporidiis monostichis, ellipsoideis villoque fusco facillime distinguitur. Pili fusci, ramosi, parce articulati, 3–4 μ. cr.

16. **Calosphæria scabriseta** (Schw.) Sacc. *Eutypa scabriseta* (Schw.) B. et C. North Am. Fungi n. 858, *Sphær.* (Circinatæ) *scabriseta* Schw. Syn. Amer. bor. n. 1394. — Irregulariter circinans, nudiuscula; peritheciis globosis nigris et fuscis valde tuberculosis; ostiolis longissimis flexuosis, undique scabris, pilis nempe 406

obsitis minutis fuscis, subpellucidis; sporidiis allantoideis, minutis 5 μ. long.

Hab. in crusta aliarum Sphæriarum sub cortice Castaneæ rarior, Bethlehem. — *Cal. pulchellæ*, cui affinis, minor. Interdum ostiola tantum ex epidermide fissa prorumpunt.

B) *Erostella:* peritheciis erostratis.

a) Perithecia glabra.

17. **Calosphæria vasculosa** Sacc. Mich. II. 52. — Peritheciis in acervulos minutos sub peridermio laxe aggregatis, globosis, majusculis, $^1/_3$-$^3/_4$ mill. diam., nigris, levibus, ostiolis obtuse conoideis, subconvergentibus, dein erumpentibus; perithecii contextu pachydermatico, fuligineo; ascis cylindraceo-clavatis, deorsum attenuatis, 70-80 ≃ 9-10, paraphysibus asco longioribus, filiformibus septulatis obvallatis, octosporis; sporidiis distichis, botuliformibus, curvulis, 10-12 ≃ 3, 2-3-guttulatis nubilosisque, hyalinis. 407

Hab. in ramis corticatis Betulæ albæ, prope Rouen (Gallia). — A speciebus mihi notis probe distincta.

18. **Calosphæria recedens** Niessl in Thuem Contr. Myc. Lusit. n. 515. — Peritheciis in cortice interiore inordinate gregariis, peridermio pustulato tectis, minutis, depresso-globosis, atris, erostratis, ostiolo papillæformi; ascis cuneiformi-clavatis, plerumque longe pedicellatis (pedicellis fasciculatis, interdum ramosis), 18-25 ≃ 5-6 (p. sporif.) octosporis; sporidiis subdistichis, in ascorum parte superiore positis, cylindricis, hyalinis, 5 ≃ 1. 408

Hab. in Eucalypti Globuli cortice emortuo, Choupal pr. Coimbra (Lusitania) (Moller).

19. **Calosphæria minima** Tul. Fung. Carp. II. 112. Nits. Pyr. germ. 96. Sacc. F. ital. t. 478. — Perithecis minutis $^1/_3$-$^1/_4$ mill. diam., aggregatis v. subsparsis, sub epidermide tumidula nidulantibus, nigris, intus nitentibus, globosis, ostiolo vix prominulo; ascis parvis, 25 ≃ 5, subclavatis, in basim sensim attenuatis, stipitibus ramosis suffultis, 8sporis, pseudoparaphysibus crassiuscule filiformibus, multiseptatis, longissimis, 100-110 ≃ 3, obvallatis; sporidiis minimis, 5-6 ≃ 1-$1^1/_2$, oblongo-cylindraceis perparum v. non curvatis, hyalinis, 2-guttulatis, distichis v. sparsis, ægre, ut videtur, diffluentibus. 409

Hab. in ramis Corni sanguineæ, Salicis, Fagi, Pruni, in Gallia, Germania, Helvetia, Italia.

20. **Calosphæria tumidula** Sacc. Fungi Veneti novi Ser. IV, p. 20, 410

Fungi ital. t. 474. — Acervulis gregariis, discoideis, diam. $1^1/_2$–$1^3/_4$ mill. in cortice pustulatim parum elevato nidulantibus, epidermide primitus tegente dein disculo minute perforata; perithecciis in quoque acervulo paucis (6–10) arcte valsiformiter aggregatis, globosis $^1/_4$–$^1/_3$ mill. diam., atris, nitidulis, glabris, ostiolis brevissimis, obtusis, disculum subrotundum atrum efficientibus; ascis clavatis apice truncato-rotundatis, 42 ≃ 6, deorsum attenuatis basidiisque elongatis suffultis, paraphysibus paulo longioribus guttulatis obvallatis, 8sporis; sporidiis distichis cylindraceo-fusoideis, curvulis, 7–8 ≃ 1, hyalinis.

Hab. in ramulis arcte corticatis Fagi sylvaticæ in sylva *Cansiglio* (Treviso, Italia bor.) octobr. 1874.

21. **Calosphæria vibratilis** (Fr.) Nitschke Pyr. germ. p. 97. *Sphæria vibratilis* Fr. — Perithecciis solitariis, sparsis, sphæroideis vel ovoideis, siccis sæpissime collapsis, lævibus glabris, raro primo parce pilosis, nigris, nitidis, diam. 0,3–0,8 mill. collis brevissimis ostiolisque rotundatis, minutissimis, peridermium haud vel vix superantibus; ascis clavatis, 24 ≃ 4 (p. sporif.), paraphysibus longioribus obvallatis; sporidiis subdistichis, fusoideo-elongatis, leniter curvulis vel subrectis, hyalinis 4–6 ≃ 1. 411

Hab. ad corticem ramorum Padi et Sorbi in Fennia meridionali et media in Germania, Britannia, Italia, Gallia. — Ostiolum tenerrimum, ægre conspicuum, sed epidermis luci obversa pertusa apparet. Supra peridermium nullo modo conspicitur, sed huic soluto sæpissime adhæret. Ascorum pedicelli ramosi.

b) Perithecia hirsuta.

22. **Calosphæria jungens** Nits. Pyr. germ. 101. — Perithecciis 2–4 in soros exiguos, orbiculares dense stipatis, parvis, adscendentibus v. fere erectis late ovatis v. subglobosis, collabascentibus, atris, pilis sparsis, patentibus, ex cinereo lutescentibus parce pilosis, deinde glabrescentibus, læviusculis, collo destitutis sed vertice tandem late perforatis, cortici interiori v. affixis tantum v. paullo immersis, peridermio facile solubili ac rimis v. poris minutis perforato, ceterum immutato, nec elevato tectis; ascis late fusiformibus, v. oblongis, rarius clavatis et apice rotundatis, obtusissimis, in pedicellum duplo longiorem subito v. sensim attenuatis, octosporis, 40, v. rarius –64 ≃ 12; sporidiis conglobatis, cylindricis, utrimque parum angustatis, curvulis v. subrectis, hyalinis, guttulis, oleosis 2–4 fœtis, 20 ≃ 4–5; rarius 12 ≃ 4–5. 412

Hab. in ramis dejectis Populi nigræ, Cappenberg (Germania).

CORONOPHORA Fuckel Symb. Mycol. p. 229 (Etym. *corone*, corona, et *fero*, quia asci plerumque apice quasi coronati). — Perithecia 4-6 in soros aggregata, sub peridermio relaxato nidulantia, membranaceo-carbonacea, ventricosa, demum evacuata, perforata, ostiolis brevissimis. Asci ampli obovati, longe abrupte-stipitati, sub apice contracti, multispori. Sporidia minuta, simplicia, cylindracea, curvata, hyalina.

1. **Coronophora gregaria** (Lib.) Fuck. Symb. Myc. 229. *Cal. gregaria* 413
Nits. Pyr. germ. 103. *Sphæria gregaria* Lib. *Cal. verrucosa* Tul. p. p. (in Alno). — Peritheciis circinatim, rarius cæspitose ac densissime sociatis, rarissime solitariis, magnis, suberectis, late ovatis v. subglobosis, plerumque collabascentibus v. mutua pressione angulatis, aterrimis, verruculosis, primitus parce pilosis mox autem glaberrimis, collo destitutis apice tandem late perforatis, sub peridermio varie lacerato v. rimoso cortici interiori impositis, subsymmetricis v. omnino concentricis; ascis late clavatis v. obovatis, apice rotundatis, obtusissimis, in pedicellum longum plerumque pedetentim attenuatis, lumine plus minus constricto, myriosporis, 60-80 ≃ 14-18 (p. sporif.); pseudoparaphysibus crassiusculis, filiformibus simplicibus septatis sæpeque nodoso-articulatis, ascis duplo triplove longioribus; sporidiis numerosissimis, conglobatis, cylindricis, curvulis, subhyalinis, 8-12 ≃ 2-3 («8 ≃ 1,5-1,7, bi-guttulatis»).

Hab. in ramis corticatis Sorbi, Betulæ, Cerasi, Tiliæ in Gallia, Germania, Italia, Belgio.

2. **Coronophora angustata** Fuck. Symb. Myc. 229. *Cal. angustata* 414
(Fuck.) Nits. Pyr. germ. 105. *Sphæria Leveillei* Tul., *Cal. verrucosa* Tul. p. p. (in Ceraso). — Peritheciis nunc numerosis, in soros orbiculares v. ovales, medio steriles dispositis nunc paucis tantum, circinantibus nunc denique omnino solitariis, inordinate sparsis, concentricis v. symmetricis, erectis v. fere decumbentibus, ovatis v. globosis, majusculis, tandem collapsis, plus minus verruculosis, atris, glabris, collo destitutis, vertice pertusis, per peridermium varie fissum sæpe erumpentibus, in corticis interioris superficie sessilibus, rarius ejus strato supremo basi immersis; ascis late obovatis, apice obtusissimis, basi sæpe ventricosis, membrana crassiuscula textis, in pedicellum exiliter filiformem, parte sporifera plerumque quinquies, immo sexies longiorem abrupte attenua-

tis, 32–36 ≃ 14–16 (p. sporif.), ascorum lumine rarius ascis ipsis sub vertice angustatis; sporidiis numerosissimis, conglobatis, cylindricis, subrectis, hyalinis, 4–8 ≃ 1.

Hab. in ramis Fagi, rarius Juglandis, Cytisi, Pruni, Münster, Baden. — Spermogonia conica aureo-cinerea; conidiis allantoideis, 8 ≃ 1, stipitellatis.

3. **Coronophora macrosperma** Fuck. Symb. Myc. App. I. 324. — Peritheciis sparsis vel laxe gregariis totis superficialibus, *Coronoph. gregariæ* magnitudine sed magis regulariter ovato-globosis, antice conico-attenuatis perforatisque, demum, sed raro depressis, subtiliter verrucosis, nigris; ascis ut massa hyalina expulsis, longe abrupte stipitatis, clavatis, antice attenuatis, plus minusve coronatis, polysporis, 152 ≃ 24; sporidiis cylindraceis, curvatis, continuis, hyalinis, utrinque uniguttulatis, 12 ≃ 4; pseudoparaphysibus articulatis, latiusculis. 415

Hab. in cortice interiore Quercus, rarius, Eberbach (Rhenogovia). — Stroma prorsus obsoletum.

4. **Coronophora abietina** Fuck. Symb. myc. App. II. 324. — Peritheciis cæspitosis, erumpentibus, demum liberis, *Coronophoræ gregariæ* forma, magnitudineque; ascis abrupte clavatis, coronatis, inferiori parte multo latiori quam in *Coronoph. gregaria*, 80 ≃ 16 (in clavula), multisporis; sporidiis cylindraceis, curvatis, continuis, 8 ≃ 1.5, hyalinis. 416

Hab. in ramis putrescentibus corticatis Abietis excelsæ in Rhenogovia.

5. **Coronophora abieticola** (Crouan) Sacc. *Calosph. abieticola* Crn. Finist. p. 23. — Peritheciis solitariis, ellipsoideis, e latere compressis, nigris, astomis («?») corticolis, 4–3 mill. diam. («?»); ascis latis, ovatis, apice subtruncatis, deorsum in stipitem filiformen abrupte desinentibus; sporidiis copiosissimis, botuliformibus, valde curvatis, hyalinis. 417

Hab. in cortice putri Abietis, Finistère (Gallia). — Cellulæ perithecii interiores magnæ, ovoideo-hexagonæ.

6. **Coronophora annexa** (Nits.) Fuck. Symb. 229. *Cal. annexa* Nits. Pyr. Germ. 102. *Cal. biformis* Tul. p. p. — Soris e peritheciis 4–8, densissime stipatis, circinantibus, adscendentibus compositis, sparsis, e basi orbiculari depresse conicis, summo corticis interioris strato basi immersis, ceterum liberis peridermio nonnihil elevato, fisso v. perforato tectis; peritheciis majusculis, ovoideis, tandem collapsis ac mutua pressione sæpe plus minus compressis, villo 418

sordide fuscescenti, immo nigrescenti dense vestitis, apicibus erostratis, poro pertusis, in disculum orbicularem subjunctis; ascis clavatis v. fere oblongis, pedicellatis, polysporis, 36–48 ≃ 8–12 (p. sporif.); sporidiis cylindricis, curvulis v. subrectis, hyalinis, 6–9 ≃ 1½.

Hab. in ramis Alni glutinosæ, Œstrich, et in Gallia; Salicis cinereæ, Münster.

7. **Coronophora Nitschkei** Sacc. *Cor. myriospora* Nits. Pyr. Germ. 419 p. 10 (nec Dur. et Mont.). — Peritheciis exiguis, globosis, tandem collapsis, villo spisso, brevi, sordide luteo undique tectis, in singulo soro orbiculari, minuto, cortici interiori imposito nec immerso peridermioque parum elevato tecto, paucis tantum (4–6) circinatim dispositis, adscendentibus, subito in colla brevia, e basi angustata plus minus incrassata, fere ovata, sæpe depressa ac rima longitudinaliter exarata attenuatis; ostiolis ex apicibus collorum constrictis formatis, minutis, pertusis, atris, in corpus peridermium perforans, irregulare, conjunctis; ascis clavatis, v. oblongis, subsessilibus, myriosporis, pseudoparaphysibus filiformibus, simplicibus, eseptatis superatis, 75–90 ≃ 12–15; sporidiis numerosissimis, conglobatis, cylindricis, rectis, subhyalinis, 2 ≃ 1.

Hab. in ramo Quercus putri, socia *Enchnoa infernali*, prope Münster (Germania).

8. **Coronophora consobrina** Karst. Fung. Fenn. exsicc. 890. Myc. 420 Fenn. II. 158. — Peritheciis circiter 5 in soros orbiculares minutos, materia corticali involutos dense stipatis, circinantibus, glabris, in colla brevissima vel brevia attenuatis, atris, sphæroideis, 0,3–0,4 mill. diam.; ostiolis in corpus minutissimum, peridermium perforans, atrum conjunctis; ascis oblongato-clavatis, paraphysatis apice rotundatis, myriosporis, 40–50 ≃ 16–20; sporidiis elongatis, curvulis, simplicibus, hyalinis, 3–4 ≃ 1.

Hab. in ramulis Alni glutinosæ exsiccatis in Mustiala (Fennia) mense Aprili unica vice reperta. — «Forte *Ascospora vibratilis* Bon. Abhandl. p. 149 huc spectat».

9. **Coronophora Rosarum** (Crouan) Sacc. *Calosphæria Rosarum* Crn. 421 Finist. p. 33. — Peritheciis subsphæricis, 1–2 mill. diam., nigris, astomis («?») solitariis v. in circulum aggregatis, sub epidermide in cortice nascentibus, dein erumpentibus; ascis ellipsoideis, sursum attenuatis, longe filiformi-stipitatis; sporidiis copiosissimis, cylindricis, curvulis, hyalinis.

Hab. in cortice Rosarum vetusto, Finistere (Gallia).

10. **Coronophora myriospora** (Dur. et Mont.) Sacc. *Sph. myriospora* Dur. et Mont. Fl. Alg. p. 524, Syll. Crypt. n. 846. — Tecta, conferta, subseriata; peritheciis minutis, globosis, collabascentibus, fuscis, ostiolo erumpente, obtuso, poro pertuso, disco nullo; ascis clavatis, polysporis; 60–100 ≃ 15; sporidiis linearibus obtusis, 3–4-guttulatis, 15 ≃ 2.5. 422

Hab. in ramis Jasmini fruticantis, Alger (Durieu).

11. **Coronophora ootheca** (B. et C.) Sacc. *Sph. ootheca* B. et C. North Amer. Fungi n. 899. — Congregata, globosa, glabrescens, nitida, macula nigra insidens; ascis obovatis, sporidiis numerosis, allantoideis farctis. 423

Hab. in ramis quercinis in Amer. bor. — *Sph. mucida* β. *rostellata* Schw. in Rhoe huc spectat; in hac asci 25 μ. longi: exemplaria in Quercu præbent ascos majores.

12. **Coronophora Broomeiana** (Berk.) Sacc. *Sphæria Broomeiana* Berk. Dec. n. 496. — Peritheciis in cæspitem orbicularem congestis, atris, opacis, setis brevibus exasperatis, ostiolo papilliformi notatis v. omnino astomis; ascis clavatis latis; sporidiis innumeris minutis oblongis curvis, hyalinis. 424

Hab. in lignis putrescentibus, Ceylon (Thwaites).

QUATERNARIA Tul. Fung. Carp. II. 104 (Etym. *quaternus*, ob perithecia in soris sæpe quaterna). — Perithecia cortice nidulantia, circinatim quaterna-sena, nigrolimitata; ostiolis convergentibus disculum perforantem formantibus. Asci stipitati, octospori, aparaphysati. Sporidia botuliformia, olivacea. — Spermogonium sistit *Libertellæ* species.

1. **Quaternaria Persoonii** Tul. Carp. II, 105, t. XII, f. 16–25. *Sphæria quaternata* Pers. Syn. p. 45. — Circinata; peritheciis subquaternis cortice nidulantibus, basi applanatis, nudis decumbentibus, ostiolis brevibus, obtusis lævibus, pertusis, convergentibus, epidermidem æqualem vix superantibus,; ascis oblongo-clavatis, longissime stipitatis, 50–80 ≃ 8–10 (p. sporif.); sporidiis distichis, cylindraceis, curvatis, continuis, dilute-fuscis, 16 ≃ 3–4. — Stat. spermonicus *Libertellam fagineam* Desm. sistit. 425

Hab. in ramis corticatis Fagi sylvaticæ, rarius Castaneæ, Aceris, Carpini, Alni serrulatæ in Britannia, Suecia, Gallia, Italia, Helvetia, Belgio, Amer. bor. — Perithecia 3–6 decumbentia, circinantia, libera, ovata, majuscula. Ostiola brevia, subincurva, epidermidem perforant, sed non prominent, inter se

quidem libera, sed discum minimum convexum tuberculosum plerumque opacum formant.

2. **Quaternaria dissepta** (Fr.) Tul. Fung. Carp. II. 107. *Sphæria dissepta* Fr. S. M. II. 392. *Diatrype stipata* B. Br., *Sph. Saturnus* Sow. — Laxe circumscripta, peritheciis subcutaneis sparsis, excipuliformibus, amplis, ostiolis erumpentibus subjunctis; ascis anguste clavatis, v. subcylindricis, longe pedicellatis p. s. 90–100 = 16–18; sporidiis botuliformibus olivaceis, 2-guttulatis, 22–26 = $4^1/_2$–$5^1/_2$ mono-distichis. — Spermogonia nota, *Libertellam* sistentia. 426

Hab. sub epidermide ramorum Ulmi, rarius Salicis, Tiliæ, Amorphæ, in Suecia, Gallia, Germania, Belgio, Amer. bor. — Perithecia globosa, suberecta, in cortice interiori sparse nidulantia, raro solitaria, passim circinantia, sæpius in plagas corticem elevantes aggregata, crustula tecta et in ambitu linea nigra, nunc subrotunda, nunc maxime flexuosa (1 lin. – 2 unc. lata) circumscripta. Stroma corticale, perithecia disseptans; quando perithecia valde conferta nigrescens; quando epidermis facile secedit ab hac coloratum testaceum. Ostiola collo tereti brevi erumpunt, papillæformia, sæpius in discum inæquabilem homogeneum collecta, raro solitaria. — Adest var. ostiolis exertis (ex Gallia).

3. **Quaternaria Morthieri** Fuck. Symb. myc. 229, t. II, fig. 43. — Peritheciis majusculis 4–6 in stromate albo, nigrolimitato in cortice interiore nidulantibus, globosis, atris, ostiolis in disco aterrimo convexo erumpente fisso minutissimis, vix prominulis; ascis cylindraceis, stipitatis, 88 = 8 (p. sporif.); sporidiis octonis oblique monostichis, oblongo-lanceolatis, utrinque obtusis, subcurvatis, 16 = 3–4, 1–2-guttulatis, fuscis. 427

Hab. in ramis corticatis dejectis Quercus in Germania et Helvetia. — « An *Anthostoma?* ».

4. **Quaternaria regularis** Nits. Pyr. Germ. p. 89. — Stromate corticali, discreto v. confluente, atro-limitato; peritheciis in singulo stromate 2–5, minutis, subglobosis, circinantibus denseque stipatis, collo brevissimo et ostiolo rotundato, minuto nec incrassato, pertuso, in disco nonnihil prominulo, peridermium perforante instructis, ascis cylindricis, pedicellatis, octosporis, membrana crassiuscula textis, 200 = 16 (p. sporif.); sporidiis oblique monostichis, oblongis, utrimque obtusis, rectis v. inæquilateralibus, nigricantibus, 28–32 12–14. 428

Hab. in ramis emortuis Alni glutinosæ, Cappenberg (Germania).

VALSA Fr. S. Veg. Scand. p. 410 (emend). Sacc. Consp. Gen. Pyr. p. 4 (Etym. *Valsa* est nomen casuale ab Adansonio conditum et a Scopolio adhibitum pro fungis variis, præprimis *Xylaria*. *Hypoxylon*, posterius a Friesio ad hodiernas valsaceas limitatum). — Perithecia cortice immersa in acervulos stromaticos aggregata, in circulum simplicem (circinantia) v. compositum (monosticha) disposita stratoque unico, neque polysticha; ostiolis centro convergentibus, integris, erumpentibus et discum efformantibus. Asci octospori, rarius 4-spori, sessiles aparaphysati. — Spermogonia Cytisporæ species sistunt.

Subgen. *Euvalsa* Nits. Pyr. Germ. p. 126.

Stroma corticale, infra linea nigra nulla circumscriptum; discus sæpius ater. (Nonnullæ, forte multæ species imperfecte descriptæ hic ad interim locatæ sunt, quæ vero dum melius cognitæ forent ad subg. *Leucostomam* v. *Eutypellam* forte transferendæ essent).

A) *Microsporæ:* sporidiis minutis (5-12 μ. long.).

1. **Valsa ceratophora** Tul. Sel. Fung. Carp. II, p. 191, tab. XXII, fig. 1-11. *Sphæria Ceratospermum* Tode?, Fr.!, *Sph. decorticans* Fr. p. p. *Sph. enteroleuca* Fr.? — Stromate minuto, e basi orbiculari, rarius ovali depresse convexo v. subconico, nunc peridermio, plerumque rimose fisso, tecto, nunc contra parum protuberante peridermiique facile resolvendi laciniis cincto et ut corticis interioris superficie ipsa colore fusco tincto; peritheciis in singulo stromate 5-20, monostichis, minutis, densissime stipatis, subglobosis, collis brevibus ostiolisque plus minus longe exsertis, tenuibus, cylindricis, læviusculis, basi plerumque fasciculatim connatis, deinde divergentibus v. varie flexuosis præditis; ascis anguste clavatis, octosporis 32-40 ≃ 4-5; sporidiis subdistichis, cylindricis, curvulis v. subrectis, hyalinis, 6-8 ≃ $1^1/_2$-2. — Spermogonia multilocularia *Cytisporam* referentia: spermatiis allantoideis 4 ≃ 1, longe stipitatis. 429

Hab. in ramis corticatis Quercus, Castaneæ, Cratægi, in tota Europa, Amer. bor., Ceylon. — In agro Veneto legi quoque in ramis Rhois glabræ (a. 40 ≃ 6; sp. 8-11 ≃ $1^3/_4$-2). — Coryli Avellanæ (a. 38-40 ≃ 5; sp. 8-10 ≃ $1^1/_2$-2, hyalina. — Fraxini Orni (a. 30-35 ≃ 5; sp. 8-10 ≃ 1). — Mori albæ (a. 35 ≃ 5; sp. 10 ≃ 1-$1^1/_4$) — Ulmi campestris (a. 38 ≃ 4-5; sp. 10 ≃ 1). — Carpini Betuli, Pruni domesticæ, Aceris campe-

stris, Alni glutinosæ, Photiniæ glabræ, Persicæ vulgaris, formas inter se parum diversas.

Var. *Rosarum* De Not. Sf. ital. p. 37, t. 42. Pustulis minoribus, peritheciis parcioribus, ostiolis abbreviatis. — In ramis Rosarum in Britannia, Germania, Gallia, Italia.

2. **Valsa Rubi** Fuck. Symb. myc. p. 200, Peck. 28 Rep. — Peritheciis 6–10, in cortice interiore, sine stromate proprio nidulantibus, globosis, atris; ostiolis conferte erumpentibus, brevibus, obtusis, umbilicatis perforatisque, aterrimis; ascis lanceolatis, subsessilibus, octosporis, 32 ≃ 5; sporidiis farctis, cylindraceis, continuis, curvatis, hyalinis, 8–9 ≃ 2. 430

Hab. in sarmentis corticatis Rubi fruticosi, rarius Jura (Morthier) in Italia bor. (Sacc.); in ramis Rubi villosi Amer. bor. — A *Valsa ceratophora* var. *Rosarum* De Not. recedit ostiolis brevioribus, umbilicatis.

3. **Valsa cœnobitica** Ces. et De Not. Schem. sferiac. 33 et sfer. ital. t. 41. — Stromate e basi suborbiculari depresse conico v. convexo, parum v. omnino non emergente rarius nonnihil protuberante et peridermii laciniis cincto, corticis interioris parenchymate quasi composito eique concolore, rarius fucato, ostiolorum fasciculo libero coronato; peritheciis in singulo stromate 7–10, rarius pluribus, monostichis, subglobosis, mutua pressione plerumque angulatis, minutis, in collum breve attenuatis; ostiolis crassiusculis, plus minus elongatis, apicem versus sensim attenuatis, obsolete nodulosis, basi connatis, divergentibus, poro minutissimo pertusis; rarissime abbreviatis et in disculum minutum collectis; ascis clavatis, octosporis, 36–40 ≃ 6; sporidiis subdistichis, cylindricis, hyalinis, parum curvatis v. rectis, 8–12 ≃ 2–2½. — Spermogonium *Cytisporam* sistit: spermatiis botuliformibus, 5–6 ≃ 1, brevistiptatis. 431

Hab. in ramis Quercus in Italia bor. et Germania et in radicibus Alni prope Münster (Germ.).

4. **Valsa coacta** Sacc. et Speg. Mich. I. 20. — Peritheciis in acervulo minutos vix elevatos, cortice interiore hinc inde nidulantes, monostiche aggregatis, globoso-depressis, ostiolis cylindraceis vertice rotundato lævique pertusis, convergentibus, disco minuto nigro, subcirculari (diam. vix ½ mill.) periderma circum circa arcte adhærens perforante, vix exserto; ascis clavatis 30–35 ≃ 5, sessilibus, aparaphysatis, 8sporis; sporidiis irregulariter distichis, botuliformibus, curvulis, 8–10 ≃ 2–2¼, hyalinis. 432

Hab. in ramis corticatis Fici Caricæ *a Susegana* (Italia

bor.). — Cum *Valsa sycina* Mtgn. Syll. 221 (quæ forte forma *Eutypæ heteracanthæ* Sacc.) nullum commune habet. A *Valsa ceratophora* Tul., cui affinior, disco minuto non exserto arcte cincto, pustulis non prominulis, recedit.

5. **Valsa coronata** (Hoffm.) Fr. Summ. Veg. Sc. p. 421. *Sphæria coronata* Hoffm. Veg. Crypt. I. 26, t. 5, fig. 2. — Stromate convexo, depresso, minuto, parum v. vix protuberante, sparso, approximato, basi interdum confluente; ostiolorum disculo minutissimo, stromati quasi imposito, peridermium plerumque laxe adhærente pertusum nonnihil superante; peritheciis in singulo stromate 4–12, monostichis, immo circinantibus, minutis, subglobosis, in corticis interioris parenchymate haud mutato nidulantibus, confertis, in collum brevissimum attenuatis; ostiolis minutissimis, abbreviatis, atris, nitidis, rotundatis, v. truncatis poroque angustissimo pertusis, in disculum fere planum densissime stipatis; ascis anguste clavatis, octosporis, minutissimis, 24–28 ≃ 4; sporidiis subdistichis, cylindricis, curvulis, hyalinis, 6–7 ≃ 1½. — Spermogonium *Cytisporam* referens: spermatiis allantoideis 6 ≃ 1, hyalinis. 433

Hab. in ramis Corni albæ Lipsiæ, Reichartshausen (Germania). — Formæ in Castanea, Rosa, Cratægo in Britannia et Amer. bor. dubiæ mihi videntur.

Var. *melanostica* Mont. Syll. Crypt. n. 767. Pustulis epidermide determinate nigricante tectis, ostiolis exsertis subglobosis, conglomeratis, rimulosis; ascis fusiformibus parvis, sporidia 8 recta aut curvula foventibus. — In cortice Tiliæ prope Lemovicem Galliæ (Lamy).

6. **Valsa cenisia** De Not. Sfer. ital. p. 39, t. XLIV. Nits. Pyr. Germ. 185. — Stromate, conico-truncato vel depresse convexo, nunc peridermio arcte adhærente tecto, non contra, peridermio secesso, libero ex fusco nigricante latit. 0,8–2 mill.; peritheciis 3–20 in quovis stromate, subsphæroideis, mutua pressione angulatis, dense stipatis, collis breviusculis ostiolisque nunc in discum subpulveraceum, plerumque planum conjunctis, nunc discretis, abbreviatis vel plus minus exsertis, longiusculis, flexuosis, subcylindraceis, crassis, apicibus rotundatis demumque poro pertusis; ascis cylindraceo-clavatis 30–40 ≃ 5–6; sporidiis conglobatis vel subdistichis, elongatis, 6–12 ≃ 1–2. — Spermogonia stromatibus perithecigeris similia, disco albido-cinereo, poro vulgo unico pertuso; spermatiis elongatis, curvulis, hyalinis, 5–7 ≃ 1–1,5, tandem in cirrhos aquose albidos, siccos flavidos propulsis. 434

Hab. in cortice Juniperi communis et virginianæ in Italia, Germania, Fennia, Amer. bor. — Affinis *V. Dubyi* Nits.

Var. *invalida* Karst. *V. cenisiæ* extus simillima, sed adhuc fere minor; ascis 25 ≃ 3–4; sporidiis subdistichis vel conglobatis, 5–6 ≃ 1; spermatiis rectis vel subrectis, elongatis, 3–4 ≃ 0,5–1 diversa. — In cortice ramulorum Juniperi communis in regione aboënsi Merimasku (Fennia), Junio.

7. **Valsa sabalina** Cooke in Grevill. VII. 52. — Tecta, prominula; 435
pustulis in maculis elongatis nigricantibus insidentibus; ostiolis convergentibus, emergentibus; ascis clavatis; sporidiis linearibus, obtusis, curvulis, 8–9 μ. long.

Hab. in Sabal, Darien, Amer. boreali.

8. **Valsa strobiligena** Sacc. et Roum. Reliq. Lib. II. n. 186. — Acer- 436
vulis minutis, erumpentibus, nigris; peritheciis paucioribus, ostiolis conjunctis, vix excedentibus; ascis tereti-oblongis, sessilibus, 30–35 ≃ 6–7, octosporis; sporidiis distichis, allantoideis, curvulis, 8–9 ≃ $1^1/_2$–2, hyalinis.

Hab. Malmedy (Germania) in squamis strobilorum Abietis excelsæ. — An forma deminuta *V. Abietis* Fr.?

9. **Valsa Abietis** Fr. Summ. Veg. Scand. p. 412. *Sphæria Pinastri* 437
Grev. — Stromate exiguo, e basi orbiculari depresse conoideo, peridermio fere integro et ostiolorum fasciculo solum pertuso tecto, corticis interioris parenchymate, specie immutato, composito; peritheciis in singulo stromate 5–15, minutis, monostichis, mutua pressione semper fere angulatis, in colla brevissima attenuatis; ostiolis, incrassatis, atris, lævibus, confertissime stipatis, minimis, sphæroideis, rarissime longius exsertis, subcylindraceis; ascis anguste clavatis, sessilibus, 28–36 ≃ 4–6; sporidiis, conglobatis, elongatis, curvulis, vel subrectis, 6–9 ≃ 1,5. — Spermogonia forma et magnitudine stromatibus perithecigeris simillima, collo crasso rotundato v. truncato, ex griseo vel luteo fuscescente poroque angusto unico, rarius pluribus, aperto instructa, multilocularia; spermatiis, exilissimis, 3 ≃ 1.

Hab. in ramis corticatis Abietis excelsæ in tota fere Europa. — β. *ceratina* Fr. S. M. II. 398, pustulata, erumpens, ostiolis in discum exertis tentaculatisque. In ramis abiegnis.

10. **Valsa microstoma** (P.) Fr. Summ. Veg. Scand. p. 411? Nits. Pyr. 438
Germ. p. 193. *Sphæria microstoma* Pers., an. Fr.? — Stromate e basi rotundato-ovali convexo, rarius conico, in discum ovalem, immo fere ellipticum, rarius orbicularem cylindricum abrupte at-

tenuato, corticis interioris strato supremo tantum immerso, ut ejus superficie, colore castaneo tincto; disco per peridermii leviter adhærentis rimulas, transversim directas erumpente: stromatibus irregulariter sparsis, basi sæpe confluentibus; peritheciis in singulo stromate 6-20, monostichis, minutis, densissime confertis, inde e globoso plerumque angulatis, in collum crassiusculum attenuatis; ostiolis incrassatulis, rotundatis v. fere globosis, abbreviatis, in discum planum stipatis, atris, nitidulis; ascis oblongis v. clavatis, sessilibus, octosporis, 40–48 ≃ 6–8; sporidiis conglobatis v. subdistichis, cylindricis, curvulis, hyalinis, plerumque 8–10 ≃ 2–2½. — Spermogonia cytisporoidea, multilocularia; spermatiis allantoideis 5–6 ≃ 1,4 longe stipitatis.

Hab. in ramis crassioribus Pruni spinosæ et domesticæ in Anglia, Gallia, Germania, Italia, Suecia, frequens. — Cl. Currey (Linn. Trans XXII, t. 47, f. 130) exhibet sporidia multo longiora, nempe 13–17 μ. et re vera sec. exempl. Friesii, quæ forte *V. cinctam* spectant.

11. **Valsa mediterranea** De Not. Sfer. ital. n. 43, tab. 43. — Peri- 439
theciis sub epidermide nidulantibus, plus minus numerosis, circinantibus, ovoideis siccis collabascentibus; collis longiusculis, fasciculato-emergentibus, ostiolo obtuso, pertuso; ascis oblongis, octosporis, aparaphysatis, 50–55 ≃ 9–10; sporidiis allantoideis, hyalinis 12–15 ≃ 2–2.3.

Hab. in ramis siccis Oleæ europeæ, Genova, Padova (Italia boreali).

12. **Valsa Fuckelii** Nits. Pyr. Germ. p. 192. Sacc. Myc. Ven. Spec. 440
t. XIII. fig. 15–18. — Stromatibus plano-convexis, paullum ex corticis interioris superficie editis, approximatis, non raro basi confluentibus, ostiolorum disculo solum peridermium arcte adhærens emergente; peritheciis in singulo stromate numerosis (plerumque 10–20), monostichis, minutis, densissime stipatis mutuaque pressione angulatis, collo brevi præditis; ostiolis minutissimis, atris, nitidis, dense in discum planum confertis, haud elongatis, poro angustissimo pertusis; ascis anguste clavatis; sessilibus, octosporis, 36–49 ≃ 6; sporidiis conglobatis, cylindricis, curvulis v. subrectis, hyalinis, 6–12– plerumque 10 ≃ 2–2,5.

Hab. in ramis Coryli Avellanæ in Germania, Italia, Britannia. «Ascos biformes vidi; alios lineari-oblongos 32 ≃ 5, alii obovatos, 28 ≃ 10; omnes 8sporos; sporidia in primis subdisticha, in postremis polysticha, cylindracea leniter curvata, hyalina, 12 ≃ 2»,

13. **Valsa affinis** Nits. in Fuck. Symb. myc. p. 199. — Peritheciis 441
primo spermatiis cylindraceis, curvatis, 4 ≃ 1, in sterigmatum ramosorum apicibus repletis, ascophoris circinatis, in discum parvum vix emergentem convergentibus; ascis lineari-oblongis, sessilibus, 8sporis, 30 ≃ 4; sporidiis subdistichis, cylindraceis, parum curvatis, continuis, hyalinis, 8 ≃ 2.

Hab. in ramis Coryli Avellanæ, Œstrich, Rhenog. et Italia bor. — In speciminibus italicis asci oblongo-clavati, 18–22 ≃ 6, sporidia botuliformia, minutissima, 5–6 ≃ $1^1/_2$, 2-guttulata, hyalina. — A *Valsa Fuckelii* Nits., cui affinis, ascis sporidiisque conspicue minoribus recedit.

14. **Valsa fallax** Nits. in Fuck. Symb. myc. p. 200, — Pustulis mi- 442
nutis gregariis, vix prominulis; peritheciis circinantibus corticolis, ostiolis in discum minutum peridermium breviter excedens convergentibus; ascis lineari-oblongis, sessilibus, 8sporis, 36 ≃ 4; sporidiis subdistichis, cylindraceis, curvatis, continuis, hyalinis, 8 ≃ 2. — Spermogonium sistit *Cytisporam Corni* West.

Hab. in ramis siccis Corni sanguineæ in Germania, Belgio, Gallia, Italia.

15. **Valsa Pini** (Alb. et Schw.) Fr. Summ. Veg. Scand. p. 412. *Sphæ-* 443
ria Pini A. et S. *Sph. leucophæata* Reb. — Stromate conico-truncato vel hemisphærico, plus minus prominente, nunc peridermio fere integro vel fisso tecto et extus intusque cortici concolori, nunc contra, peridermio mox secesso, libero et ut superficie corticis ipsa ex fusco nigricante, discreto vel rarius confluente; peritheciis numerosis, 20–30 in quovis stromate, dense confertis, subovoideis, perexiguis, collis breviusculis ostiolisque in discum planum collectis, apice rotundatis vel truncatis, dein pertusis, aterrimis, abbreviatis, raro rostellatis, minutissimis; ascis cylindraceo-clavatis, 30–32 ≃ 5–6; sporidiis, conglobatis, 5–9 ≃ 1,5. — Spermogonia (*Cytispora Pini* Desm.) stromatibus perithecigeris simillima, papillis 1, raro 2–3 instructa, intus griseo-viridula, multilocularia, locellis radiatim dispositis. Spermatia elongata, subrecta, hyalina, 4 ≃ 1, tandem in cirrhos flavidos propulsa.

Hab. in cortice ramorum Pini sylvestris in Suecia, Germania, Belgio, Italia, Fennia, Amer. bor. — *Valsæ decumbenti* affinis.

16. **Valsa leiphæmioides** B. et C. North Am. Fungi n. 868. — Pu- 444
stulis subcorticalibus, ostiolis congestis tandem expositis; pulvere niveo intermixtis, sporidiis allantoideis, 10 μ. long.

Hab. in ramis Quercus obtusilobæ etc., Carolina, New England (Amer. bor.). — « An forma *V. ceratophoræ?* ».

17. **Valsa insignis** Nits. Pyr. Germ. p. 188. — Stromate grandiusculo, e basi orbiculari v. late ovali conico-truncato v. sæpius subcylindrico, peridermio facile solubili ac plerumque transversim fisso erumpente, cortici interiori adnato v. basi tantum strato ejus supremo innato; corticis superficie circa stromata nec non stromata ipsa colore sordide et opace fuligineo tincta; discus stromatis basi paullo v. vix angustiore planiusculo, immo excavato, sordide lutescente, ostiolis minutissimis, numquam elongatis, hemisphæricis, deinde poro pertusis, dense ac sine ordine sparsis nigropunctulato; peritheciis in singulo stromate numerosissimis, minutis, monostiche densissimeque stipatis, mutua pressione semper ac varie angulatis, collo pertenui instructis; stromatis substantia expallente v. flavicante; ascis cylindrico-clavatis, sessilibus, octosporis, 36–44 (plerumque 40) ≃ 5–6; sporidiis subdistichis v. conglobatis, cylindricis, parum curvatis, hyalinis, 7–9 (plerumque 8) ≃ 2. 445

Hab. in truncis et ramis Coryli tubulosæ Willd., Cappenberg (Germania).

18. **Valsa decumbens** (Schmidt) Nits. Pyr. Germ. p. 198, *Sphæria decumbens* Kunze in Fr. S. M. II. 408. — Stromate per peridermii rimas transversim directas, erumpente, immo, peridermio dejecto, tandem libero, nigricante, variæ magnitudinis, plerumque minuto, conico, rarius forma irregulari, tuberculiformi; stromatibus 2–3 sæpe approximatis, basi v. omnino confluentibus; peritheciis in singulo stromate nunc paucis tantum (4–8), nunc contra numerosissimis, minutis, mutua pressione angulatis, monostichis, in collum longiusculum attenuatis; ostiolis minutissimis, abbreviatis, punctiformibus, rotundatis, atris, nitidulis; ascis anguste clavatis, sessilibus, octosporis, 26–30 ≃ 4–5; sporidiis subdistichis, cylindricis, nonnihil curvatis, hyalinis, 6–8 ≃ 1½. 446

Hab. in radicibus defossis Pini sylvestris in Lusitania et prope Münster (Germania).

19. **Valsa Schweinitzii** Nits. Pyr. Germ. p. 191. *Sphæria corniculata α salicina* Alb. et Schw. — Stromate e basi orbiculari truncato-conico, minuto, nonnihil protuberante, peridermio erumpente ejusque laciniis fissis cincto v. peridermio, facile solubili, dejecto in corticis interioris superficie fuscescente libero; peritheciis in singulo stromate 5–12, corticis parenchymati immutato insculptis, monostiche denseque stipatis, majusculis, subglobosis, in collum 447

breve attenuatis; ostiolis nunc in stromatis disco vix exsertis, minimis, atris, nitidis, poro angustissimo apertis, plus minus dense stipatis, nunc contra (sed multo rarius) elongatis, cylindricis, fasciculatim erumpentibus, flexuosis; ascis sessilibus, anguste clavatis v. oblongis, octosporis, 40–48 ≃ 6–7; sporidiis cylindricis, nonnihil curvatis, hyalinis, 8–12 ≃ 2–2½. — Spermogonia cytisporoidea, spurie multilocularia; spermatiis allantoideis 4–5 ≃ 1, longe stipitatis.

Hab. in ramis corticatis Salicis Capreæ et fragilis in Germania et Italia. — « Affinis *V. Verruculæ* ».

20. **Valsa Syringæ** Nits. Pyr. Germ. p. 189. — Stromate exiguo, 448
per peridermii rimas minutas ac longitudinaliter directas erumpente, e basi orbiculari late ac depresse conico v. subhemisphærico, in disculum orbicularem v. rarius fere ellipticum subito attenuato, plus minus protuberante et pustulas peridermio plerumque arcte adhærente lateribus obductas, in ramis ramulisque gregatim sparsas formante; peritheciis in singulo stromate plerumque 8–12, rarius 4–7 tantum, perexiguis, globosis v. compressis, monostichis et in collum pro situ plus minus longum attenuatis; ostiolis punctiformibus, mox pertusis, abbreviatis, truncatis denseque confertis disculi fuscescentis partem mediam occupantibus; ascis subfusiformibus, sessilibus, octosporis, 40 ≃ 6; sporidiis subdistichis, cylindricis, curvulis v. subrectis, hyalinis, 8–12 ≃ 2. — Spermogonia cytisporoidea multilocularia; spermatiis allantoideis, 5 ≃ 1, longe stipitatis.

Hab. in ramis Syringæ vulgaris in Germania et Italia boreali.

21. **Valsa Vitis** (Schw.) Fuck. Fung. rhen. n. 607. Nits. Pyr. Germ. 449
190, *V. vitigera* Cooke. Cfr. Mich. I. 19, *V. Vitis* Schw. p. p. — Stromatibus alte immersis, e basi orbiculari v. ovata per corticem superiorem fibrosum, ductu lineari longitudinaliter parumque emergentibus; peritheciis monostichis, minutis, in singulo stromate 10–16, angulatis, collo brevi instructis; stromatis substantia albida; ostiolis abbreviatis, cylindricis, truncatis, poro angustissimo pertusis, atris nitidis, in disculum ovalem v. subrotundum, stromatis substantia fuscescente plerumque cinctum, planum v. nonnihil convexum stipatis; ascis sessilibus, anguste clavatis, octosporis, 48 ≃ 7–8; sporidiis conglobatis, cylindricis, curvatis v. subrectis, hyalinis, 10–12 ≃ 2–3. — Spermogonia cytisporoidea, multilocularia; spermatiis allantoideis 4–5 ≃ 1, longiuscule stipitatis.

Hab. in sarmentis Vitis viniferæ in Germania, Italia, Gallia, Amer. boreali.

22. **Valsa Verrucula** Nits. Pyr. Germ. p. 178. — Stromate e basi orbiculari hemisphærico, verrucæformi, intus griseo-flavescente peridermio arctissime adhærente, hinc inde fisso, tecto, disco libero, suborbiculari, ex ostiolis numerosissimis stipatissimisque formato coronato; peritheciis in singulo stromate numerosissimis submonostiche densissimeque stipatis, minutis, subglobosis v. mutua pressione angulatis, in collum longiusculum attenuatis; ostiolis plerumque plus minus elongatis et in disculi ambitu subdivergentibus, cylindricis, lævibus, obtusis, poro minutissimo perforatis, aterrimis, interdum abbreviatis nec stroma superantibus; ascis anguste oblongis v. clavatis, sessilibus, octosporis, 40-44 ≃ 6; sporidiis subdistichis, curvulis v. subrectis, cylindricis, hyalinis, 10, rarius 12 ≃ $2^1/_2$. 450

Hab. in ramis Salicis fragilis, Nienberge, Germ. et Salicis vitellinæ in Ital. bor. — Rami fungo invasi dense verrucosi fiunt.

23. **Valsa cristata** Nits. Pyr. Germ. p. 182. — Stromate e basi orbiculari conico, rarius depresso, subhemisphærico, pustulato, valde protuberante, peridermio arrecto, plerumque haud fisso arctissimeque adhærente lateribus tecto, ostiolorum fasciculo coronato; perithecis in singulo stromate 10-20, monostiche confertissimeque stipatis ac mutua pressione angulatis, corticis substantiæ, specie immutatæ insculpatis, collo longiusculo instructis, in stromatibus minoribus sæpe radiatim fere ordinatis; ostiolis plerumque plus minus elongatis, cylindricis, apicem versus parum attenuatis, v. nodulosis, basi conjunctis, ceterum divaricatis, flexuosis (rarius ostiolis omnibus abbreviatis), discum minutum, suborbicularem ac peridermii formam vix superantem, planum, atrum formantibus; ascis anguste clavatis, octosporis, 40 ≃ 5; sporidiis subdistichis, allantoideis, curvulis v. rectis, 5-6 ≃ 1, hyalinis. 451

Hab. in ramis Tiliæ, Cappenberg (Germania). — Affinis *V. ceratophoræ*.

24. **Valsa Spegazziniana** Sacc. Mich. I. p. 20 et M. V. n. 749. — Peritheciis hinc inde monostiche aggregatis, cortice nidulantibus epidermidemque pustulatim elevantibus, globulosis, atris; collis elongatis convergentibus in ostiola rotundata disculum subcircularem vix exsertum efficientia, desinentibus; ascis fusoideis, 40-50 ≃ 7-8, aparaphysatis, octosporis; sporidiis distichis, botuliformibus, 10-13 ≃ 452

$1^1/_2$ -2, 2-guttulatis, perfecte hyalinis. — Peritheciorum contextus laxe cellulosus, olivaceo-fuscus.

Hab. in ramis corticatis Evonymi europæi, *a Conegliano* (Ital. bor.), (Spegazzini).

25. **Valsa ribesia** Karst. Fung. Fenn. exsicc. 857. Myc. Fenn. II. p. 138. — Stromate e basi orbiculari depresse conoideo, peridermio fere integro et ostiolorum fasciculo solum pertuso tecto, corticis parenchymate specie immutato composito; peritheciis in singulo stromate 6–12, monostichis vel subcircinatis, collis elongatis, decumbentibus; ostiolis conferte stipatis, atris, levibus, sphæroideis; ascis cylindraceo-clavatis, 35–42 μ. long.; sporidiis elongatis, distichis, subrectis, 6–9 ≃ 1,5. 453

Hab. in ramis Ribis alpini aridis, rara, in Fennia.

26. **Valsa exigua** Nits. Pyr. Germ. p. 196. — Stromate in corticis interioris superficie locum aliquantulum sensimque elevatum sistente ostiolorum disco minimo, tuberculiformi, peridermio erumpente coronato; peritheciis in singulo stromate 5–8, ovatis, monostichis v. circinantibus, in corticis interioris substantia immutata dense nidulantibus, collis brevissimis instructis; ostiolis minutissimis, atris nitidis, rotundatis, poro vix conspicuo pertusis, in corpusculum exiguum, deforme conglomeratis, rarius disculum planum formantibus densissime stipatis; ascis sessilibus, anguste clavatis, octosporis, 40–44 ≃ 6; sporidiis cylindricis, nonnihil curvatis, hyalinis, 9–12 ≃ 2–$2^1/_2$. 454

Hab. in ramis Aceris campestris, prope Münster (Germania). — Affinis *Valscæ coronatæ*, sed peritheciis, sporidiis, ascisque majoribus satis recedit.

27. **Valsa horrida** Nits. Pyr. Germ. p. 176. — Stromate e basi ovata convexo, depresso, subito in disculum minutum, ellipticum, planum, peridermium tandem transversim erumpentem idque vix superantem attenuato, cortici interiori, in superficie, ut stromata ipsa, colore castaneo tincto adnato; peritheciis monostichis, numerosis, minutis, densissime stipatis, mutua pressione angulatis, nunc omnibus stromate omnino inclusis, marginalibus convergentibus, collo longiusculo, ostiolo punctiformi, hemisphærico, poro minutissimo perforato instructis, nunc contra pro parte subliberis, collis longis, subcylindricis, apicem versus sensim attenuatis, nodulosis v. sulcatis, liberis, plerumque radiatim divergentibus et horizontaliter directis peridermioque tectis; peritheciis paucis hujus indolis sæpe in spermogonii basi oriundis et ab eo coronatis; ascis cla- 455

vatis v. oblongis, sessilibus, octosporis, 36–48 ≃ 8–12; sporidiis conglobatis v. subdistichis, cylindricis, curvulis v. subrectis, hyalinis, 10–12 ≃ 3. — Spermogonia cytisporoidea; spermatiis allantoideis, 5 ≃ 1, longe stipitatis.

Hab. in ramis dejectis Betulæ albæ, prope Münster (Germania).

28. **Valsa Hoffmanni** Nits. Pyr. Germ. p. 145. Sacc. M. V. Spec. t. XIII. f. 11–14, *Sphœria coronata* Hoffm. p. p. in Cratægo? — Stromate e basi ovali depresse convexo, in parte superiore abrupte conico-attenuato v. omnino trucato-conico, transversim erumpente cortici interiori parum immerso, colore pulchre castaneo tincto; ostiolorum disculo minuto, suborbiculari, per peridermii facile resolvendi rimas, transverse directas erumpente; peritheciis in singulo stromate 15–25, monostichis, minutis, angulatis, in stromatis substantia albida confertissime nidulantibus in collum breviusculum attenuatis; ostiolis minutissimis, atris, nitidis, poro angustissimo pertusis, abbreviatis, in disculum planum densissime stipatis; ascis anguste clavatis, sessilibus, octosporis, 40 ≃ 5; sporidiis conglobatis, cylindricis, curvulis v. rectis, hyalinis 7–10 ≃ 1,5–2,5. — Spermogonia cytisporoidea: spermatiis allantoideis, 5–6 ≃ 1, longe stipitatis. 456

Hab. in ramis corticatis Cratægi Oxyacanthæ, Münster, Œstrich, (Germania), Rouen (Gallia), Treviso (Italia).

29. **Valsa oxystoma** Rehm Ascom. n. 270. Diagn. p. 70. — Stromatibus e basi elliptica conicis compressis, mill. 1,5 ≃ 1, in cortice interiore immutato nidulantibus, nigrescentibus, per rimas peridermii transversas erumpentibus; peritheciis in singulo stromate 8–12, globosis, dense stipatis, monostichis, in collum longum attenuatis; ostiolis elongatis tenerrimis, in stromatis superficie nigra monostiche erumpentibus et plus minusve extantibus; ascis clavatis, 8-sporis, 45 ≃ 8; sporidiis allantoideis, hyalinis 9 ≃ 2; paraphysibus filiformibus 6 μ. cr. 457

Hab. ad ramos Alni viridis in Alpibus Tyrolensibus.

30. **Valsa Friesii** (Duby) Fuck. Symb. Myc. p. 108, Nits. Pyr. Germ. p. 203. *Sphœria Friesii* Duby. — Stromate minuto, e basi orbiculari conico-truncato, depresso, cortici omnino insculpto, nec protuberante, peridermio integro, salvo disco, tecto; peritheciis in singulo stromate 6–10 (raro 3 tantum), subcircinantibus, globosis, minutulis, in corticis parenchymate immutato nidulantibus, collis brevissimis instructis; ostiolis incrassatis, minutis, globosis, rarius 458

ovoideis, acutiusculis v. truncatis, atris, poro minimo pertusis, in disculi cinerei, fuscescentis margine emergentibus, confertis, rarius discum integrum occupantibus; ascis anguste clavatis, sessilibus, octosporis, 40 ≃ 6; sporidiis conglobatis, cylindricis, nonnihil curvatis, hyalinis, 10 ≃ 2. — Spermogonia phyllogena, exigua, pauciloculata, cytisporoidea; spermatiis allantoideis, 4–5 ≃ 1,5, breve stipitatis.

Hab. in ramulis Abietis pectinatæ, in Gallia, Germania, Belgio.

31. **Valsa incrustata** (Kunze) Nits. Pyr. Germ. p. 208. *Sphæria incrustata* Kunze in herb. — Stromatibus exiguis, e basi suborbiculari convexis, valde depressis, dense sparsis, peridermio immutato, ostiolorum disculo minutissimo solum perforato nec pustulato-elevato, arce adhærente omnino tectis; peritheciis in singulo stromate 4–8, in circulum simplicem dispositis, parum confertis, globosis, sæpe depressis v. collapsis, pro ratione majusculis, corticis interioris parenchymati semiimmersis et ab ejus strato supremo immutato, stromatis vicem præbente obductis, decumbentibus, collo perithecii diametro plerumque breviori, tenui, cylindrico, ostiolisque minutissimis, punctiformibus, aterrimis, nitidulis, rotundatis, in disculi margine tantum v. confertim erumpentibus ac vix exsertis; ascis clavatis, sessilibus, octosporis 30 ≃ 4–5; sporidiis subdistichis, cylindricis, nonnihil incurvis v. subrectis, hyalinis, 9–11 ≃ $1^1/_2$. 459

Hab. in ramis Alni in Lusatia, rarius (Schmidt). — A *V. stenopora* certe diversa.

32. **Valsa intermedia** Nits. Pyr. Germ. p. 199. — Stromate e basi orbiculari depresse convexo, minuto, peridermio plerumque arcte adhærente tecto, inde pustulato, disculo minimo, peridermium pertusum paullo superante, coronato; pustulis dense gregatis basi sæpe confluentibus; peritheciis in singulo stromate plerumque 3–8, rarius pluribus (–25), majusculis, globosis v. compressis, subcircinantibus v. monostichis, in collum brevissimum attenuatis; ostiolis subglobosis v. truncatis, rarissime modice elongatis, e basi incrassata ovoideis, atris, nitidis, poro pro ratione majusculo pertusis, nunc tantum in disculi ex cinereo fuscescentis margine, nunc — si plura adsunt perithecia — in ejus superficie integra erumpentibus; ascis anguste clavatis v. oblongis, sessilibus, octosporis, 64 ≃ 8; sporidiis subdisticis, curvulis v. subrectis, hyalinis, 10–16 ≃ 2–3. — Spermogonia cytisporoidea; spermatiis allantoideis 5–6 ≃ 1,5, longe stipitatis. 460

Hab. in ramis tenuioribus Quecus prope Münster, rarius. — Nonnullis notis cum *V. ceratophora*, habitu vero cum *V. ambiente* convenit.

33. **Valsa sordida** Nits. Pyr. Germ. 203. Sacc. M. V. Spec. t. XIII. fig. 8–10. *V. ambiens* Auct. p. p., *V. deplanata* Nees sec. Fuck. — Stromate majusculo, e basi orbiculari v. ovali obtuse conico, nunc depresso, parum v. vix protuberante, nunc contra pustulato, peridermio integro v. stellatim, rarius rimose fisso, arcte adhærente tecto; peritheciis in singulo stromate plerumque 6–12, irregulariter circinantibus, globosis in majoribus magisque protuberantibus multo numerosioribus (15–25), monostichis, densissime stipatis, compressis, in corticis substantia immutata nidulantibus et in collum nunc breve, nunc longiusculum attenuatis; ostiolis incrassatulis, fere globosis v. truncatis, atris, poro angusto pertusis, plerumque in disci ex albido-cinereo mox sordide fuscescentis margine tantum emergentibus; ascis anguste clavatis v. oblongis, sessilibus, octosporis, 48–60 ≃ 8; sporidiis conglobatis, cylindricis, curvulis v. subrectis, hyalinis, 12 ≃ 1½–2. — Spermogonia cytisporoidea, radiatim multilocellata; spermatiis allantoideis 4 ≃ 1, longe stipitatis, dein in cirrhos luteos longissimos protrusis. 461

Hab. in ramis Populi nigræ, P. italicæ in Germania, Italia, Gallia, California.

34. **Valsa præstans** B. et C. in Curtis Catal.? Cooke Vals. of Un. St. 117. — Peritheciis..... ostiolis non sulcatis; ascis octosporis; sporidiis allantoideis, hyalinis 10–12 ≃ 3. 462

Hab. in cortice Nyssæ, New Jersey, Am. bor. — A *V. Nyssæ* C. et E. differt sporidiis longioribus; ad speciem Curtisianam parum notam dubitanter cl. Cooke refert hunc fungillum.

35. **Valsa haustellata** Fr. Cooke Valsei of Un. St. 115. *Sphæria haustellata* Fr. S. M. II. 383. Schw. Syn. Am. bor. n. 1320. — Tecta, basi innata, late conica, stromate tenui pallido, ostiolis distantibus, cylindricis, pertusis non sulcatis; ascis octosporis; sporidiis allantoideis, valde curvatis, 6–8 ≃ 2, subsuccineis (Cooke l. c.). 463

Hab. in ramis in Suecia et in ramis Alni serrulatæ et Ostryæ virginicæ, Carol. inf., Santee Swamp, N. York. (Amer. bor.). — Pustulæ basi cortici profunde immersæ, lineaque tenui nigra ad lignum penetrante laxius circumscriptæ; perithecia profunde demersa, collis longis convergentibus stromate conjunctis, unde discus prominens convexus angustatus, ostiolis brevibus distinctis lævibus, subinde apice dilatatis.

36. **Valsa mendax** Mont. Syll. Crypt. n. 755 et Fl. Alg. p. 473, sub *Sphæria* — Pustulata; peritheciis paucis, amplis, sphæricis, cortici immersis, collis stromate corticali nigrescente tectis, ostiolis in discum erumpentem minutum convexum connexis, perithecia ovato-globosa subpapillata mentientibus; ascis fusiformibus 40 μ. long., sporidiis linearibus brevibus rectis aut curvulis 10 μ. long. 464

Hab. in caulibus Atriplicis Halimi, Pointe-Pescade, Alger (Durieu).

37. **Valsa multiplex** C. et E. New Jersey Fungi in Grev. VII. 14. — Pustulis magnis, erumpentibus, elevatis; disco brunneo; ostiolis numerosis, nigris, congestis; ascis clavatis; sporidiis biseriatis, allantoideis, hyalinis 10 μ. long. 465

Hab. in ramis Quercus coccineæ, New Jersey (Am. bor.). — Pustulæ seu stromata, quasi *Diatrypes;* ostiola minuta, copiosissima, stipata.

38. **Valsa Terebinthi** H. Fab. Sphér. Vaucl. p. 70. — Peritheciis minimis 5-15 in singulo acervulo, corticis parenchymati immutato infossis, globosis, atris, ostiolis brevibus, apice nitidis, in discum punctiformem conferte erumpentibus; ascis clavatis, sessilibus, 8-sporis, 20-34 ≃ 5-6; sporidiis distichis, hyalinis, continuis, cylindraceis, curvulis, utroque polo 1-guttulatis, 9 ≃ 2. 466

Hab. in ramis exaridis Pistaciæ Terebinthi, socia *Cytispora* olivaceo-cirrhosa Vaucluse (Gallia).

39. **Valsa rhamnicola** H. Fab. Sphér. Vaucl. p. 69. — Peritheciis in singulo acervulo 8-20, corticis parenchymati immutato infossis, globosis, minutis, ostiolis in discum atrum conoideum pustulatim peridermium inflantem atque transversim erumpentem collectis, totam superficiem disci papillis atris, nitidis et minutissimis exasperantibus; ascis clavatis, sessilibus, 8-sporis, 25-27 ≃ 4-5; sporidiis subdistichis, hyalinis, cylindraceis, curvulis, continuis, 6-7 ≃ 2. 467

Hab. ad ramos mortuos et corticatos Rhamni infectorii Vaucluse (Gallia). — Julio.

40. **Valsa perfodiens** Nits. in Fuck. Symb. myc. p. 200. — Peritheciis ..... Ascis oblongo-ellipticis, sessilibus, 8sporis, 28 ≃ 4; sporidiis farctis, cylindraceis, curvatis, continuis, hyalinis, 8 ≃ 2. 468

Hab. in ramis siccis Viburni Lantanæ, Œstrich, Rhenogovia.

41. **Valsa accedens** Sacc. Fungi Ven. Ser. V. p. 179. — Peritheciis circinantibus, in cortice nidulantibus et epidermide tumidula tectis, e globoso-depressis, olivaceis, ostiolis in centrum radiatim convergentibus, longis, in ostiola rotundata atra, epidermidem perforan- 469

tia et vix excedentia desinentibus; perithecii contextu distincte laxe parenchymatico olivaceo-fusco; ascis clavatis, 60–70 ≃ 8.10, breve crassiuscule (sæpe incurvo) stipitatis, apice crasse tunicatis, aparaphysatis, 8sporis; sporidiis distichis, botuliformibus, 10–14 ≃ 3, initio pluriguttulatis, dein utrinque guttulatis, hyalinis. — Spermogoniis sub epidermide nidulantibus, astomis, nucleo griseo-olivaceo farctis, spermatia in sterigmatibus simpliciter verticillato-ramosis, filiformibus acrogena, botuliformia, 6 ≃ 1, hyalina foventibus.

Hab. in ramis corticatis Quercus pedunculatæ in sylva *Montello* (Ital. bor.) Sept. 1875. — Ob ascos apice crassiuscule tunicatos, stipitatos, basidiisque sæpe suffultos species hæc ad *Calosphæriam* vergit.

42. **Valsa subcuticularis** C. et E. N. Jers. Fungi in Grevillea VIII. p. 13. — Circinata. Peritheciis globosis, decumbentibus, sub epidermidem nidulantibus, ostiolis elongatis tenuibus, convergentibus; ascis clavatis; sporidiis allantoideis, hyalinis 6–7 μ. long. 470

Hab. in ramis Ilicis, New Jersey. Am. bor. — Peridermium ab ostiolis leniter inflatum et punctulatum, sed pustulæ parum conspicuæ; peridermio secesso, perithecia libro hærent, quasi *Calosphæria.*

43. **Valsa pulchelloidea** C. et E. New Jersey Fungi in Grevillea VI, p. 92. — Peritheciis globosis, decumbentibus, in circulum dispositis; ostiolis elongatis convergentibus; ascis clavatis 25 μ. long. sporidiis minutis, allantoideis, hyalinis 5–6 μ. long. 471

Hab. in cortice Quercus, New Jersey, Amer. bor. — Perithecia minuta, copiosa 10–20, collis longis convergentibus, quasi *Calosphæriæ principis,* sed perithecia majora.

44. **Valsa quernea** Curr. Linn. Trans. XXII, p. 279, t. 48, fig. 141, Cooke Handb. n. 2480. — Peritheciis valseis.....; ascis clavatis, apice rotundatis, deorsum attenuatis; sporidiis prope asci apicem stipatis, allantoideis, hyalinis, 5–7 μ. long. 472

Hab. in ramis quercinis, Weybridge (Britannia). — «An *Calosphæriæ* species?»

45. **Valsa cornicola** Cooke in Grev. VII. 83. — Disco erumpente, orbiculari, brunneo; peritheciis minutis, nigris, collis convergentibus; ostiolis circulum plus v. minus regularem efformantibus; ascis clavatis; sporidiis botuliformibus, 12 μ. long. 473

Hab. in ramis Corni, Darenth (Britannia). — Prorsus diversa a *V. fallaci* Nits.

46. **Valsa demissa** Nits. Pyr. Germ. p. 197. — Stromate basi ovali 474

corticis strato supremo immerso, superne protuberante et in disculum late ellipticum v. rarius suborbicularem sensim attenuato, exiguo, peridermio facile solubili, transversim fisso v. lacerato erumpente lateribus sordide fuscescente; stromatibus sine ordine, sed plerumque dense sparsis, basi haud raro connatis; peritheciis in singulo stromate paucis tantum 4–10, monostichis v. radiatim dispositis, minutissimis, subglobosis v. angulatis in collum pro ratione longum, tenue attenuatis; ostiolis abbreviatis semper ac perexiguis, plus minus dense confertis in disculi ex cinereo sordide lutescentis, immo fuscescentis medio erumpentibus nec exsertis, truncatis, poro pertusis; ascis anguste clavatis v. subfusiformibus, sessilibus, octosporis, 32 ≃ 5; sporidiis conglobatis v. subdistichis, subrectis v. parum curvatis, cylindricis, hyalinis, 5–7 ≃ 1–1½, rarius 8 ≃ 2.

Hab. in ramis crassioribus Carpini prope Münster, Germania. — A *Valsa decorticante* sporidiis ascisque minoribus differt.

47. **Valsa Dubyi** Nits. Pyr. Germ. p. 187. *Valsa coronata* Duby p. p. — Stromate e basi orbiculari depresse convexo, parum protuberante peridermio arcte adhærente tecto; peritheciis in singulo stromate 10–20, monostichis, mutua pressione varie angulatis, densissime stipatis, majusculis, in collum breve attenuatis; ostiolis plerumque parum exsertis, abbreviatis, cylindricis, aterrimis, nitidis, poro pro ratione lato pertusis, laxiuscule in disculum a stromatis substantia cincto, confertis, rarius plus minus elongatis, crassiusculis, subcylindricis, nonnihil flexuosis; ascis anguste clavatis, sessilibus octosporis, 36 ≃ 6; sporidiis subdistichis, cylindricis, curvulis v. subrectis, hyalinis, 7–10 ≃ 2. — Spermogonia cytisporoidea: spermatiis allantoideis, 5 ≃ 1, breve stipitatis. 475

Hab. in ramulis et foliis Juniperii communis in Helvetia et Germania.

48. **Valsa decorticans** Fr. Summ. Veg. Scand. p. 412 pr. p. Nits. Pyr. Germ. p. 194, *Sphæria decorticans* Fr. S. M. II. 396 p. p. — Stromate e basi suborbiculari v. sæpius ovali depresse conico v. convexo, in ostiolorum discum abrupte attenuato, majusculo, peridermio facile solubili erumpente ejusque laciniis fissis cincto, fuscescente immo tandem nigrescente; peritheciis in singulo stromate, cortici interiori parum tantum immerso 6–22, monostichis dense stipatis mutuaque pressione e globoso angularibus, in collum longiusculum attenuatis; ostiolis plus minus exsertis, cylindricis, tenuibus, atris, nitidis, discum orbicularem v. stromate transver- 476

sim erumpente, ellipticum formantibus, plerumque dense stipatis, apice nunc rotundatis, v. truncatis poroque magis perspicuo pertusis nunc attenuatis, conicis, rarissime longius exertis, cylindricis, parum flexuosis; ascis anguste oblongis v. clavatis, sessilibus, octosporis, 44–50 ≃ 6; sporidiis conglobatis, cylindricis, nonnihil curvatis v. rectis, hyalinis, 10–12 ≃ 2½. — Spermogonia cytisporoidea: spermatiis allantoideis 4–5 ≃ 1, mediocriter stipitatis.

Hab. in ramis exsiccatis Fagi sylvaticæ et Carpini in Suecia, Germania, Gallia, Italia, Belgio.

49. **Valsa Liquidambaris** (Schw.) Cooke Valsei of Un. St. 115. Grev. t. 75, fig. 16. *Sphæria Liquidambaris* Schw. Syn. Carol. n. 103. — Pustulata, minor, peritheciis decumbentibus, ostiolis minutis stipatis, teretibus, brevibus; ascis clavatis; sporidiis (sec. exempl. Curtisii) allantoideis, hyalinis, 12 μ. longis. 477

Hab. in ramis Liquidambaris in Carolina, New Jersey (Am. bor.). — Media inter *S. coronatam* et *S. decorticantem.* Pustulæ lineam vix latæ, subinde vero plures confluunt, prominentes, conceptaculo a cortice interiori formato brunneo, epidermidem radiato-fissam demum excutientes. Stroma cinereum, in quo nidulantur sphærulæ nigræ flexuosæ. Discus nullus, sed ostiola in centro exserta, minuta, conferta, lævia, nitida.

50. **Valsa sorbicola** Nits., Fuck. Symb. Myc. 198. *S. decorticans* Fr. S. M. II, 396 p. p. in Sorbo. — Pustulata, peritheciis subdifformibus, aggregatis, ostiolis minutis, confertis, globosis, umbilicatis; ascis oblongo-ellipticis, sessilibus, 8sporis, 24 ≃ 4; sporidiis farctis, cylindraceis, curvatis, continuis, hyalinis, 8 ≃ 2. 478

Hab. in ramis exsiccatis Sorbi aucupariæ in Suecia, Germania, Helvetia.

51. **Valsa excorians** C. et E. New Jersey Fungi in Grev. VIII, p. 14. Pustulis in cortice immersis, elevatis, erumpentibus et epidermidem ramorum excutientibus; disco primo sordido; ascis clavatis; sporidiis allantoideis, minimis, hyalinis, 5–6 μ. long. 479

Hab. in ramis Pyri arbutifoliæ, New Jersey (Amer. bor.). — Habitus *Valsæ decorticantis* Fr.; a qua sporidiis dimidio minoribus statim distinguitur.

52. **Valsa concamerata** Curr. Linn. Trans. XXII, t. 48, fig. 134. — Peritheciis corticem elevantibus, conceptaculum concameratum efficientibus, inter se filis albis fibrosis connexis; sporidiis stipatis, hyalinis, curvulis, 10 μ. long. 480

Hab. in ramis quercinis in Britannia. — Præeunte ipso Curreyo, mera forte *T. ceratophoræ* varietas.

53. **Valsa stephania** Pass. Funghi Abiss. p. 187. t. V. fig, 9. — Stromate fusco subgloboso, pustulato, protuberante, peridermio lacero non adhærente cincto, ostiolis fasciculatis v. dissitis adscendentibus v. varie flexis coronato; perithecis in stromate singulo numerosis, stipatis, subglobosis in collum longum cylindricum flexuosum apicem versum sensim incrassatum productis; ascis innumeris coacervatis, exiguis, 16–18 ≃ 4 (ex ic.), fusiformi-clavatis, 8-sporis, membrana tandem evanida; sporidiis subdistichis, minimis, oscillantibus simplicibus, cylindricis, rectis v. curvulis, hyalinis, 5 ≃ 1 (ex icone); paraphysibus nullis. 481

Hab. in cortice crassiore Acaciæ, Keren, Abyssinia. — Affinis *V. ceratophoræ*, a qua stromatis crassitie et ostiolis crassioribus et longioribus differt. «Sec. icones citatas dimensiones ascorum et sporidiorum sunt duplo majores quam in textu Passeriniano citatæ; sed probabiliores sunt eæ, quas supra indicavi.

54. **Valsa Nyssæ** Cooke. Rav. Fung. Amer. n. 194, et in Grev. VI. p. 145. — Pustulis cortice tectis; perithecis ovatis, in collum longum attenuatis, atris; ascis clavatis; sporidiis linearibus curvulis, hyalinis 8 μ. long. Adsunt sæpe spermogonia majora in centro circuli peritheciorum. 482

Hab. in ramis Nyssæ, Aiken, Carolina inf. (Am. bor.).

55. **Valsa præclara** Mont. Syll. Crypt. n. 760 et Fl. Alg. p. 469, sub *Sphæria*. — Lentiformis, in rimis caulium seriata; stromate niveo; perithecis ovoideis, membranaceis, erectis, conceptaculo hemisphærico tectis, ostiolis erumpentibus crassiusculis rugosis; sporidiis elongato-subreniformibus. 483

Hab. in caulibus Cirsii gigantei elapsis, La Calle (Durieu).

56. **Valsa parasitica** C. et E. New Jersey Fungi in Grevillea VII, p. 9. — Circinata. Peritheciis globosis, parvulis, decumbentibus, ostiolis elongatis, subflexuosis, supra fuscis; ascis clavatis; sporidiis allantoideis, minimis, 6 μ. longis. 484

Hab. in Massaria sudante vetusta, New Jersey, Am. bor.

57. **Valsa Nepalensis** (Berk). Sacc. *Sphæria Nepalensis* Berk. Dec. n. 487. — Pustulis depressis, 1–2 mill. lat.; peritheciis decumbentibus circinantibns; collis longis, ostiolis obsoletis; ascis angustis, sporidiis biseriatis, allantoideis, 7–8 μ. long. 485

Hab. in ramis emortuis Betulæ, East Nepal, India (Hooker). — Matrix inter perithecia flavicat.

58. **Valsa anomia** (Schw.) Cooke Vals. Un. St. 116. *Sphæria anomia* Schw. Syn. Fung. Am. bor. n. 1316, an Fr. — Convexo-difformis, libera, rugosa, stromate ligneo cinereo-nigricante, ostiolis exsertis distantibus magnis lævibus; sporidiis botuliformibus 8–10 μ. long. 486

Hab. in ramis Robiniæ in Carolina et Virginia, Am. bor. — Species homonyma Auct. europæorum ad *Aglaosporam* potius spectat.

59. **Valsa ligustrina** Cooke New Jersey Fungi in Grev. VIII. p. 14. — Peritheciis paucis, ostiolis abbreviatis; ascis clavatis; sporidiis allantoideis, hyalinis 8 μ. long. 487

Hab. in ramis Andromedæ ligustrinæ, New Jersey (Am. bor.). — Affinis *Valsæ delicatulæ* C. et E.

60. **Valsa juniperina** Cooke. Rav. Fung. Amer. n. 193 et in Grev. VI, p. 144. — Pustulis epidermide tectis; disco farinaceo, pallido; peritheciis atris, paucis; ostiolis elongatis, cylindricis, leniter striatis; ascis subclavatis; sporidiis linearibus, obtusis, hyalinis, 8 μ. long. 488

Hab. in cortice Juniperi virginianæ, Aiken. Carol. inf. (Am. bor.).

61. **Valsa delicatula** C. et E. New Jersey Fungi in Grev. VI, p. 10, t. 95, fig. 11. — Pustulis minimis, circularibus v. oblongis, erumpentibus; peritheciis phialiformibus, membranaceis, brunneis, tectis, in acervulum brunneum collectis; ostiolis convergentibus, gracilibus, ad apicem tumidis perithecium æquantibus; ascis clavatis; sporidiis allantoideis, hyalinis, 7,5 μ. long. 489

Hab. in ramis Andromedæ et Vaccinii, New Jersey (Am. boreali).

62. **Valsa subclypeata** C. et Peck. 27 Rep. p. 109. — Peritheciis ternatis vel quaternatis, pustulas epidermide atro-nitidula denique lacerata velatas, efformantibus circumcirca tandem dealbatos; ostiolis convergentibus epidermidem perforantibus; ascis anguste fusoideis; sporidiis linearibus minutis, utrinque rotundatis, leniter curvis, hyalinis. 490

Hab. in Amer. bor. Forestburgh, in ramulis quercinis et Rhododendri, New Yersey in ramis Rubi.

63. **Valsa conscripta** C. et E. New Jersey F. in Grev. VII, p. 8. — Epidermide tecta; peritheciis subglobosis, ostiolis demum rimose erumpentibus; ascis clavatis; sporidiis cylindricis, obtusis, curvulis, hyalinis, 20 × 4. 491

Hab. in ramis Caryæ et Comptoniæ, New Jersey (Amer. boreali).

64. **Valsa clausa** C. et E. New Jersey Fungi in Grev. VIII, p. 13. 492
Cæspitulis in cortice nidulantibus, supra tectis; peritheciis 4-6 subglobosis; ostiolis brevibus, convergentibus; ascis clavatis; sporidiis biseriatis, allantoideis, hyalinis, 16-18 μ. long.

Hab. in ramis Quercus coccineæ, New Jersey, Am. bor. — Peridermium leviter inflatum, vix tamen ab ostiolis convergentibus perforatum.

65. **Valsa rhoophila** C. et E. in Grev. VII, p. 9. — Pustulis orbicu- 493
laribus; peritheciis globosis, congestis; ostiolis in discum brunneum, dein atrum, erumpentibus; ascis clavatis; sporidiis hyalinis, allantoideis, circa 10 μ. long.

Hab. in ramis Rhois venenatæ, New Jersey, Amer. bor.

66. **Valsa glandulosa** Cooke in Grevill. VII. 52. — Pustulis epider- 494
mide tectis, ostiolis convergentibus, erumpentibus, nigris, nec stellatis; ascis clavatis 30 = 10; sporidiis minimis, spermatioideis, 5 μ. long.

Hab. in ramis Ailanthi, Aiken, Carolina inf. (Amer. bor.).

67. **Valsa campsospora** Mont. Syll. Crypt. n. 757. — Stromate cor- 495
ticali nigro immersa; peritheciis aggregatis inæqualibus ovoideo-sphæricis; ostiolis in discum superficiali-erumpentem minutum planum conjunctis, poroso-apertis; sporidiis linearibus lunato-curvatis 10-12 μ. longis.

Hab. in cortice Quercus Suberis, Philippeville, Algeria (Durieu).

68. **Valsa gossypina** Cooke Valsei of Un. St. 115. — Peritheciis sub- 496
quaternato-circinantibus, tectis, disco erumpente, ostiolis non sulcatis; ascis octosporis; sporidiis allantoideis, minutis hyalinis, 5-6 μ. long.

Hab. in ramis Gossypii, Carolina inf. (Ravenel). — Habitus *Quaternariæ Persoonii.*

69. **Valsa Eucalypti** Cooke et Harkn. Grevill. IX, 1881, p. 85. — 497
Erumpens, subrotunda, convexa, nigra; peritheciis oblongis; ostiolis elongatis, cylindricis, levibus, rectis; ascis clavatis, sessilibus; sporidiis rectis v. leniter curvis, utrinque obtusis, 8-9 = 1,5, hyalinis.

Hab. in ramis Eucalypti Globuli, California, Amer. bor. — Pustulæ minutæ ex 5-6 peritheciis constantes.

70. **Valsa echidna** Cooke Grevill. IX, 1880, p. 4. — Erumpens; pe- 498
ritheciis 10-20, in stromate niveo pulverulento nidulantibus; ostio-

lis cylindricis elongatis, flexuosis, exertis; ascis numerosissimis, clavatis minimis, 20–25 ≃ 6; sporidiis tenuibus curvulis hyalinis, 4 μ. long.

Hab. in corticibus in Australia (Müller). — Habitus *Valsæ Salliæ* Berk.

71. **Valsa monadelpha** Fr. Summa V. S. 411, Cooke Valsei of Un. St. 117. *Sphæria monadelpha* Fr. S. M. II, 382. — Lentiformis, libera, basi adnata, stromate cinereo-nigro, ostiolis exsertis, stipatis in discum convexum connexis; ascis octosporis; sporidiis allantoideis 10 μ. long. 499

Hab. in ramis Prunorum etc. in Suecia, Gallia. Amer. bor. — Perithecia 5–6, circa centrale circinantia, cum stromate proprio arcte inclusa, collis brevibus, ostiolis confertissimis brevibus in nodum quasi collectis. Supra ligna denudata variat effusa ostiolis distinctis. — *Sphæria monadelpha* Rabh. D. Crypt. pag. 212, in Rhamno et Syringa, sporidiis ovoideis majusculis speciem et genus absque dubio aliena sistit.

72. **Valsa microspora** (Crouan) Sacc. *Diatrype microspora* Crouan Finist. p. 33. — Peritheciis 2–8 aggregatis, 1–2 mill. diam., nigris, sphæricis, ostiolo elongato præditis; ascis minutis, octosporis; sporidiis subcylindricis curvulis biguttulatis, hyalinis. 500

Hab. in ramis Populi, Viburni, Cratægi, Finistère (Gallia).

73. **Valsa Macluræ** C. et E. New Jersey Fungi in Grev. VIII, p. 14. — Pustulis sub-corticalibus; ostiolis congestis, tandem expositis, brunneo-cinctis; ascis clavatis; sporidiis minimis, allantoideis, hyalinis, 5 μ. long. 501

Hab. in ramis Macluræ aurantiacæ, New Jersey, Amer. boreali.

74. **Valsa Pseudoplatani** (Fr.) Nits. Pyr. Germ. p. 205. *Sphæria Pseudoplatani* Fr. in Myc. Heft II, 47. *Sph. stilbostoma β. umbilicata* Fr. S. M. II, 404. — Stromate minuto, e basi orbiculari conico-truncato, salvo disco, peridermio integro tecto, nonnihil protuberante, tandem disparente, peritheciis liberis, peridermio detracto adhærentibus; peritheciis in singulo stromate 2–10, plerumque vero 5–6, circinantibus, globosis, vix umquam angulatis, majusculis, collo brevissimo instructis; ostiolis minutis, vix exsertis, atris, poro pro ratione majusculo, pertusis, in disculi minutissimi, ex dilute ochraceo tandem fuscescentis margine emergentibus; ascis anguste clavatis, v. oblongis, sessilibus, octosporis, 40–80 ≃ 8; sporidiis subdistichis, oblique monostichis v. in asci parte media disti- 502

chis, in inferiore et superiore contra monostichis, cylindricis v. obtuse fusiformibus, nonnihil curvatis v. rectis, hyalinis, 5–15–(plerumque 8–10) ≃ $2^1/_2$–4. — Spermogonia cytisporoidea; spermatiis allantoideis, 5 ≃ 1,5, longe stipitatis.

Hab. in ramis Aceris Pseudoplatani, Cappenberg, Germania et in Suecia.

75. **Valsa decidua** C. et E. New Jersey Fungi in Grevillea VII, p. 9. 503
— Pustulis elongatis, erumpentibus; peritheciis minimis, atris, stromate furfuraceo brunneo exceptis (12–20), ostiolis elongatis, demum partim deciduis; ascis clavatis; sporidiis allantoideis, minimis, hyalinis, 10 μ. long. curvatis.

Hab. in ramis Azaleæ in New Jersey (Am. bor.).

76. **Valsa subscripta** (Fr.) Cooke Vals. Un. St. 116. *Sph. tessella* β. 504
S. subscripta Fr. S. M. II. 395, nec Wallr. — Peritheciis circinantibus, linea cingente subobliterata, ostiolis in disculo erumpente solitariis; ascis minutis; sporidiis allantoideis, minutis.

Hab. in ramis Robiniæ in Carolina infer. — Affinis *Valsæ salicinæ*.

77. **Valsa stenopora** Tul. Sel fung. Carp. III. — Circinata, epider- 505
mide pustulata tecta, ostiolis in disculum minutum atrum erumpentem convergentibus, minute pertusis; ascis tereti-clavatis; 40–50 ≃ 4–5, octosporis; sporidiis allantoideis, hyalinis, 10 ≃ 1,5–2. — Spermogonia *Cytisporam* sistentia, frequentissima.

Hab. in ramis languidis Alni glutinosæ in Gallia et Italia boreali.

78. **Valsa Alni** Peck. 25 Rep. p. 103. — Peritheciis cortice interio- 506
re nidulantibus, nigris; ostiolis brevibus, nigris, obtusis, discum parvum nigricantem, sæpe transverse erumpentem punctulantibus; sporidiis sparsis aut distichis, allantoideis, 10–13 μ. long. hyalinis.

Hab. in Amer. bor., Center, in truncis et ramis Alni, qui tunc longe lateque asperuli fiunt.

79. **Valsa americana** B. et C. North Amer. Fungi n. 872, Cooke 507
Valsei of Un. St. 114. — Pustulis epidermide tectis; ostiolis congestis nec stellatis; ascis clavatis; sporidiis allantoideis, 10–12 ≃ 2.

Hab. in ramis arborum variarum v. g. Alni serrulatæ in Amer. bor. frequens æque ac *E. stellulata*. Vix forte diversa a *V. Alni* Peck.

80. **Valsa truncata** C. et Peck. 25 Rep. of St. Mus. p. 103, Cooke 508
Valsei U. S. p. 117. — Erumpens, prominens, truncata; peritheciis 6–8, cortice interiore nidulantibus, globosis, nigris, collis in

discum ellipticum v. circularem nigrum ostiolis punctulatum, margineque pruinosum desinentibus; ascis minutis lanceolatis; sporidiis allantoideis, hyalinis, 8–10 μ. long. — Spermogonia cytisporoidea, truncata, medio pulverulenta et subrimosa; spermatiis allantoideis, coacervatis succineis, 3–5 μ. long.

Hab. in ramis Alni, Johnsburgh, Warren c., Amer. bor.

81. **Valsa punica** S. et S. Michel. I. p. 367, Fungi ital. 403. — Acer- 509
vulis sparsis, cortice nidulantibus, e peritheciis paucis, laxe cohærentibus monostichis efformatis; peritheciis globulosis $^1/_4$ mill. diam., nigris, nitidis, ostiolis cylindraceis perithecium subæquantibus, modice convergentibus erumpentibusque; perithecii contextu sinuose parenchymatico fuligineo; ascis cylindraceis sessilibus, 45–50 ≃ 8, utrinque obtusiusculis, aparaphysatis, octospororis; sporidiis distichis botuliformibus, 12–14 ≃ 3, utrinque obtusis 1-guttulatisque perfecte hyalinis.

Hab. in ramulis corticatis Punicæ Granati *a Conegliano*, aut. 1877, socia *Cytispora punica* Sacc.. ejus spermogonio, sic definienda: peritheciis subcutaneis, globulosis, laxe congregatis, ostiolis vix convergentibus cylindraceis, perithecio sublongioribus; contextu regulariter parenchymatico, fuligineo; spermatiis botuliformibus, 5 ≃ 1, hyalinis, basidiis bacillaribus duplo triplove longioribus suffultis.

82. **Valsa acclinis** Fr. Summ. Veg. Scand. p. 412. Nits. Pyr. Germ. 510
p. 207. De Not. Sf. ital. n. 39, f. 39. — Stromate convexo, depresso, minuto; peritheciis sub peridermio fere liberis, corticis interioris strato supremo parum v. vix immersis, in orbem v. rarius in soros oblongos dispositis, decumbentibus, globosis, minutis, ex fusco nigricantibus, in colla perithecii diametrum æquantibus v. brevioribus subito attenuatis, apicibus obtusis nec incrassatis, adscendentibus, perforatis, subjunctis, peridermium perforantibus; ascis clavatis, basim versus breviter attenuatis, octosporis 60 ≃ 6–8; sporidiis conglobatis, cylindricis, parum curvatis v. subrectis, hyalinis, 7–9 ≃ 2 (sec. De Not. sp. 12–14 μ. long.).

Hab. in ramis exsiccatis Pyri Mali, Driesen (Germania), in Ital. bor., Suecia. — Species homonyma Schweinitzii Syn. f. Amer. bor. n. 1389 aliena est, teste Cooke, et hic sub nomine *Valsæ inclinis* exhibetur.

83. **Valsa syngenesia** Fr. Summa V. S. 411. Cooke Handb. n. 2462, nec 511
Curr. — Conica, basi adnata ceterum sublibera; stromate cinereo-nigro, ostiolis exertis; sporidiis cylindricis, curvulis, minutis, hyalinis.

Hab. in ramis Sambuci in Britannia et Rubi in Carolina. — Sec. Berk. hæc est genuina species Friesiana; e contra Currey, Nitschke, Fuckel etc. ad hanc ducunt *Diaporthes* speciem, et revera descriptio Friesii ad hanc postremam potius pertinet. Exemplaria homonyma anglica Plowrightii et Cookei *Eutypæ heteracanthæ* meæ peraffinia sunt.

B) Macrosporæ: sporidiis majoribus (14-28 μ. long.).

84. **Valsa ambiens** (Pers.) Fr. Summ. Veg. Scand. p. 412. Sacc. Myc. Ven. Sp. t. XIII, f. 5-7. *Sphæria ambiens* Pers. *Sph. capsularis* Pers. *Sph. deplanata* Nees (p. p. in Pyro) *Sph. sphinctrina* Fr. p. p. — Stromate conico, truncato, depresso, plus minus protuberante, peridermio vulgo fisso adhærente tecto; peritheciis 4-20 in singulo stromate, fere monostichis, sphæroideis vel mutua pressione angulatis, majusculis, collis tenuissimis ostiolisque incrassatis, subsphæroideis vel subovoideis, depressis, lævibus, majusculis, atris, discum primo albidum, dein cinereum, demum fuscescentem vel atrum ambientibus vel cingentibus instructis; ascis elongatis vel clavatis, 8-sporis, rarius 4-sporis, 40-88 ≃ 10-16; sporidiis conglobatis vel subdistichis, curvulis vel subrectis, octonis, 16-18 ≃ 3-4; quaternis 20-26 ≃ 5-6. — Spermogonia (*Cytispora carphosperma* Fr. etc.) stromatibus perithecigeris sat similia, disco rotundato sordido, papilla vulgo unica, atra, pertusa instructo, multilocularia; spermatiis elongatis, curvulis, 5-7 ≃ 1, tandem in cirrhos albolutescentes propulsis. 512

Hab. in ramis corticatis arborum plurimarum, Pyri, Aceris, Carpini, Coryli, Alni, Pruni, Ulmi, Quercus, Cratægi, Populi, Castaneæ, Rosæ, Tiliæ in tota Europa. — Cfr. quoad formas varias Nits. Pyr., Sacc. Mich. etc.

85. **Valsa populina** Fuck. Symb. Myc. App. I, p. 314. — Fungus spermogonicus *Nœmaspora populina* Pers. Syn. F. p. 109. Cirrhis flavis; spermatiis cylindraceis, curvatis, 8 ≃ $1^1/_2$. Fungus ascophorus *Valsæ salicinæ* valde similis; ostiolis punctiformibus, in disco sordide albo, pulveraceo, aterrimis; ascis oblongis, substipitatis, 4sporis, 54 ≃ 8; sporidiis cylindraceis, parum curvatis, continuis, 20 ≃ 4. 513

Hab. in ramis exsiccatis Populi nigræ, Œstrich, Rhenogovia. — Præcipue ob spermogonia a *Valsa sordida, salicina* et *ambiente* tute dignoscitur.

86. **Valsa salicina** (P.) Fr. Summ. Veg. Scand. p. 412. Nits. Pyr. 514

Germ. p. 212. *Sphæria salicina* Pers. — Stromate e basi orbiculari conico, depresso, truncato, paullo protuberante, pustulato, salvo disco, peridermio adhærente, integro tecto; peritheciis in singulo stromate 6–12, circinantibus, globosis, collis brevissimis ac tenuissimis instructis, corticis parenchymati immutato insculptis; ostiolis in disci erumpentis, minimi, albidi margine v. in ejus superficie ordine vario ac sero emergentibus vix exsertis, minutissimis, atris, globosis, poro angustissimo pertusis; ascis anguste oblongis v. clavatis sessilibus octo- v. tetrasporis, 44–68 ≃ 8; sporicylindricis, curvulis, unicellularis, hyalinis, in ascis octosporis subdistichis, 12–18 ≃ $2^1/_2$–4; in ascis tetrasporis vero duabus asci medium et e reliquis altera ejus partem superiorem altera inferiorem occupantibus, 20–32 ≃ 5–7. — Spermogonia (*Cytispora fugax* Fr.), radiatim multilocellata; spermatiis allantoideis 4–5 ≃ 1, longe stipitatis tandem in cirrhos rubellos v. pallidos protrusis.

Hab. in ramis Salicis albæ, vitellinæ, triandræ, fragilis, babylonicæ in tota fere Europa et Amer. bor. — Adsunt in Amer. bor. formæ parum diversæ in Viburno, Liquidambar, Platano.

87. **Valsa boreella** Karst. Myc. Fenn. II. p. 141. — Peritheciis 12–20 in quovis stromate, circinantibus, sphæroideis, sat minutis, ostiolis incrassatis, subsphæroideis, lævibus, atris, sat minutis, in margine disci confertissimis; sporidiis octonis cylindraceis, curvulis vel subrectis, conglobatis, 7–10, raro –12 ≃ 1,5–2; spermatiis elongatis, curvulis, 4–6 ≃ 1. 515

Hab. in ramis Salicum in Lapponia orientali passim v. c. Sasheika, Rasnavolok, Kola. Etiam prope Mustiala, ad Salicem capræam.

88. **Valsa Curreyi** Nits. Pyr. Germ. 202. *Sphæria Abietis* Curr. Linn. Trans. XXII, pag. 279, fig. 147, nec Fr. — Stromate e basi orbiculari, rarius ovali conico-truncato v. fere hemisphærico, protuberante, lateribus peridermio stellato-fisso, adhærente tecto: peritheciis in singulo stromate 3–15, plerumque 5–8, in corticis parenchymate immutato circinatim, rarius monostiche nidulantibus, majusculis, subglobosis v. compressis, collis brevibus instructis; ostiolis incrassatis, globosis, papilla minima, atra, nitidula, poro angustissimo pertusa superposita, nunc in disco ex albido-fuscescente dispersis vel in ejus margine emergentibus, nunc contra dense confertis, discum integrum occupantibus; ascis anguste clavatis, membrana apice crassiuscula textis, octosporis. 68–76 ≃ 8–9; spo- 516

diis subdistichis, curvulis v. rectis, cylindricis, hyalinis, 12–16 (rarissime–20) ≃ $2^1/_2$–3. — Spermogonium sistit *Cytisporam:* spermatiis allantoideis, 3–5 ≃ 1, longe stipitatis.

Hab. in ramis Laricis, Abietis excelsæ et Pini sylvestris in Britannia, Gallia, Germania, Italia. — Sporidia duplo majora quam in *V. Abietis.*

89. **Valsa Cypri** Tul. Fung. Carp. II, 194, t. XXV, fig. 10–20. Nits. 517
Pyr. Germ. 206. — Peritheciis 3–8 minutis, circinantibus, cortice interiore nidulantibus, globosis, dein collapsis, in ostiola brevicolla disculum truncatum vix emersum formantia desinentibus; ascis subclavatis, 44–54 ≃ 7, octosporis; sporidiis allantoideis, hyalinis 11–12 ≃ 2 (14–18 ≃ 3, Nits.). — Spermogoniis unilocularibus; spermatiis allantoideis 5–6 ≃ 1–1,5 in cirrhos olivaceos exsilientibus.

Hab. in ramis Ligustri vulgaris in Germania, Gallia, Italia, Fennia. — Spermogonium est *Cytispora* (Phoma?) *pruinosa* Fr.

90. **Valsa betulina** Nits. Pyr. Germ. p. 210. — Stromate majusculo, 518
e basi ovali in discum late ellipticum attenuato, valde protuberante, peridermii rimis, transversim directis, erumpente; peritheciis in singulo stromate numerosis, 20–35, circa stromatis partem mediam, sterilem, serie plerumque subtriplici circinantibus, dense stipatis globosis v. compressis, corticis parenchymati alte immersis, collis crassiusculis instructis; ostiolis in disci ex albido fuscescentis margine emergentibus, exsertis, confertissimis, valde incrassatis, grandibus, e basi rotundata apicem versus conico-attenuatis, pyriformibus, poro pro ratione angusto tandem pertusis; ascis anguste clavatis, sessilibus, octosporis, 60 ≃ 8–9; sporidiis subdistichis, cylindricis, curvulis v. subrectis, hyalinis, 14–20 ≃ 3.

Hab. in ramis crassioribus Betulæ albæ prope Schwerin (Germania). — Affinis *V. ambienti*, fabrica ostiolorum tamen diversa.

91. **Valsa germanica** Nits. Pyr. germ. p. 215. *Sphæria tessella β de-* 519
cedens Alb. et Schw. — Stromate vix ullo; peritheciis 3–9 in quovis circulo, in cortice interiori immutato libere nidulantibus, peridermio omnino tectis discum medium sterilem ex cinereo pallide fuscescentem vel spermogonium cingentibus, concentricis, sphæroideis, minutis, collis brevissimis ostiolisque rotundatis, lævibus, atris, minutis, peridermium perforantibus, plus minus distantibus, poro angustissimo pertusis; ascis e basi tenuata elongatis, periete superne crassiuscula, 8- vel 4-sporis, 72 ≃ 8; sporidiis conglobatis

vel subdistichis, cylindraceis, curvulis vel rectis, octonis 10–20, plerumque 14–16 ≃ 2,5–4; quaternis 24 ≃ 6–7. — Spermogonia conico-truncata, disco ex albido cinereo et papilla minutissima, atra, centrali, pertusa instructa, multilocularia, locellis radiatim dispositis. Spermatia cylindrica, curvula, 4–6 ≃ 1,5.

Hab. in ramis putrescentibus Salicis triandræ, pentandræ, fragilis nec non Betulæ et Populi tremulæ in Germania et Fennia. — An eadem ac *V. tessella* Fr., sed hæc sporidiis brevioribus prædita, sec. Cooke.

92. **Valsa obtecta** C. et E. New Jersey Fungi in Grevillea VI, p. 11. 520
— Pustulis minimis, ovatis; peritheciis 3–5 globosis; ostiolis sursum attenuatis, erumpentibus; sporidiis allantoideis, 14–15 ≃ 3,5.

Hab. in ramis Clethræ alnifoliæ, New Jersey, Amer. bor. bor. — Affinis *Valsæ Cypri*, sed ostiola discreta.

93. **Valsa olivacea** Fuck. Symb. Myc. App. I, 305. — Spermogoniis 521
sparsis, globosis, 1 mill. lat., atro-olivaceis, simplicibus, sub epidermide pustulato-inflata nidulantibus, tectis, ostiolo vix prominulo, minutissimo, punctiformi, obtuso, perforato; cirrhis plerumque confluentibus, olivaceis; spermatiis cylindraceis, curvatis, continuis, hyalinis, 8–9 ≃ $2^1/_2$. Perithecis ascigeris demum in spermogoniorum viciniis ortis, 5–10, sub stromate late conico seu elliptico circinantibus, decumbentibus, spermogoniorum magnitudine coloreque, in collum attenuatis, ostiolis in disco olivaceo, sed a corticis epidermide alba tectis, distincte exsertis, atris, primo conicis, demum perforatis; ascis stipitatis, oblongis, 8-sporis, 68 ≃ 12; sporidiis distichis, cylindraceis, parum curvatis, continuis, hyalinis, 18 ≃ 5.

Hab. in ramis exsiccatis tenuioribus Loniceræ Xylostei, Schloss Vollrads, Rhenogovia. — Affinis *Valsæ Cypri*, a qua spermatiis crassioribus, ostiolis longioribus etc. mox dignoscitur.

94. **Valsa sepincola** Fuck. Symb. Myc. App. II. p. 35. — Spermogo- 522
niis sparsis, in cortice interiori nidulantibus, late conicis, labyrinthiformi-loculatis, epidermidem fusce colorantibus, disco convexo planove, orbiculari, sordide albo, poro communi perforato; spermatiis cylindraceis, curvatis, 6 ≃ $1^1/_2$, Peritheciis ascigeris in cortice interiore sine conceptaculo proprio nidulantibus, circinantibus, 10–15, pro ratione majusculis, globoso-ovatis, decumbentibus, atris, disco minuto, orbiculari, candido, ab ostiolis non exertis, minutissimis, punctiformibus, atris punctulato; ascis lanceolatis, 4-sporis, 50 ≃ 8; sporidiis cylindraceis, curvatis, continuis, 20–22 ≃ 4.

Hab. in ramis exsiccatis Rosæ rubiginosæ et Rubi fruticosi, Œstrich (Rhenogovia). — Affinis *Valsæ salicinæ.*

95. **Valsa pustulata** Aw. in Nits. Pyr. germ. p. 211. *Sphæria ambiens* Auct. p. p. — Stromate e basi orbiculari v. ovali conico, truncato v. centro depresso, plus minus protuberante, pustulato, peridermio plerumque arcte adhærente, integro, rarius stellatim fisso tecto; peritheciis in singulo stromate 3–8, rarius pluribus, circinantibus, rarissime submonostichis, majusculis, subglobosis, collis brevibus, instructis; ostiolis in disci emersi, minuti, ex cinereo fuscescentis margine erumpentibus vel omnino non v. paullo tantum incrassatulis, cylindricis, rarius subglobosis, truncatis, poro pro ratione majusculo pertusis, atris, nitidulis; ascis anguste clavatis, sessilibus, octosporis, 44–60 ≃ 6–8; sporidiis subdistichis, cylindricis, nonnihil curvatis v. rectis, hyalinis, 15 ≃ 3, rarius 10–20 ≃ $2^1/_2$–4. — Spermogonia cytisporoidea; spermatiis allantoideis, 4–5 ≃ 1, longiuscule stipitatis. 523

Hab. in ramis Fagi sylvaticæ in Germania, Gallia, Italia. 524

96. **Valsa Taxi** Fuck. Symb. Myc. App. I. 316. — Spermogoniis pustulatis, 2–3 mill. lat., convexis seu lato-obtuso-conicis, sæpe confluentibus, poro centrali minuto in disco orbiculari, plano, sordido, intus multicellularibus, corneis, griseis; cirrhis longissimis, piliformibus, contortis, aureis; spermatiis cylindraceis, curvatis, continuis, 8 ≃ $1^1/_2$. Peritheciis ascigeris 12–20, demum circum spermogonia in cortice interiori inordinate nidulantibus, decumbentibus, globosis, atris, in collum perithecium dimidium æquans attenuatis, ostiolis in disco sordido, punctiformibus, planis plicatisque, atris, demum discum totum occupantibus; ascis stipitatis, oblongis 8-sporis, 72 ≃ 8; sporidiis distichis, cylindraceis, curvatis, continuis, 16 ≃ 3.

Hab. in ramis siccis corticatis Taxi baccatæ in Rhenogovia, Reichartshausen. — Affinis *V. Friesii*, a qua sporidiis majoribus etc. differt.

97. **Valsa pauperata** C. et E. New Jersey Fungi in Grevillea VIII, p. 14, M. U. n. 1954. — Gregaria, tecta, erumpens; peritheciis 2–3 in pustulas minutas congregatis, atris; ostiolis majusculis epidermidem perforantibus; ascis clavatis 60 ≃ 12; sporidiis allantoideis, hyalinis, confertis, 14–17 ≃ 3. 525

Hab. in ramis Aceris, New Jersey, Am. bor. — Pustulæ copiosæ, quandoque in lineas flexuosas digestæ. — Spermogonia pustulis ascigeris intermixta.

98. **Valsa cooperta** Cooke Valsei of Un. St. p. 118. — Peritheciis 526

valseis..... collis abbreviatis, ostiolis integris; sporidiis octonis, allantoideis, majusculis, 16–18 ≃ 4, hyalinis.

Hab. in ramis Ulmi campestris, New Jork, Am. bor. — «Forte *Valsæ ambienti* affinis».

99. **Valsa dolosa** (Fr.) Nits. Pyr. Germ. p. 200. *Sphæria dolosa* Fr. S. M. II. 405, p. p. — Stromatibus majusculis e basi suborbiculari plus minus convexis protuberantibus, peridermio arctissime adhærente, fisso v. subintegro, salvo disco v. ostiolis, tectis, gregariis, plerumque approximatis v. basi confluentibus; peritheciis in singulo stromate 6–12, rarius, 3–4, majusculis, subcircinantibus v. sine ordine stipatis, globosis, in corticis parenchymate haud mutato nidulantibus; ostiolis maxime incrassatis, globosis v. ovoideis, immo e basi incrassata fere conicis, grandiusculis, atris, nunc confertis, fasciculatim v. sine ordine erumpentibus nunc contra in disci albidi, deinde fuscescentis margine tantum emergentibus, poro angustissimo pertusis; ascis anguste oblongis, sessilibus, octosporis, 64 ≃ 10; sporidiis subdistichis, cylindricis, curvulis, hyalinis, 14–18 ≃ 3–5. — Spermogonia cytisporidea, intus viridula: spermatiis allantoideis 6–7 ≃ 1.5, longissime pedicellatis. 527

Hab. in ramis Salicis capreæ prope Münster; in ramis Celastri in Carolina (an eadem species?).

100. **Valsa laurina** C. et E. New Jersey Fungi in Grev. VII. p. 9. — Epidermide nigrificata tecta; pustulis convexis; ostiolis convergentibus; ascis clavatis; sporidiis cylindricis, utrinque obtusis; curvulis, hyalinis, 20 ≃ 4. 528

Hab. in ramis Lauri Sassafras, New Jersey (Am. bor.).

101. **Valsa rhodophila** Berk. et Br. Ann. and Mag. of. nat. Hist. ser. III, vol. III, (1859) p. 367 (?) Nits. Pyr. Germ. p. 209. — Stromate minuto, basi orbiculari, parum tantum v. vix protuberante peridermio integro, rarius fisso, arcte adhærente tecto; peritheciis in singulo stromate 4–6, corticis parenchymati haud mutato insculptis, in circulum simplicem, rarius ordine haud perspicuo gregarieque dispositis, minutis, globosis; ostiolis in disculi minutissimi, nigrescentis margine v. sæpius, disco obliterante, fasciculatim fere erumpentibus, e basi valde incrassato conicis v. ovoideis, rarius globosis, atris, nitidulis, poro raro perspicuo, angustissimo pertusis; ascis clavatis, v. oblongis, sessilibus, octosporis, membrana apicem versus incrassata textis, 84 ≃ 9–10; sporidiis subdistichis, cylindricis, nonnihil curvatis v. rectis, hyalinis, plerumque 16- ra- 529

rius 12–14 ≃ 3–4. — Spermogonia conico-truncata, spurie pauciloculariа; spermatiis allantoideis 5–7 ≃ 1, breve pedicellatis.

Hab. in ramis siccis Rosæ caninæ in Germania et Britannia. Sec. B. et Br. sporidia tantum 10 μ. longa; an diversa species?

102. **Valsa Fabreana** Sacc. *Valsa Maclurœ* H. Fabr. Sphér. Vaucl. 530 p. 70 (Oct. 1879), nec *V. Maclurœ* C. et E. (Sept. 1879). — Peritheciis 10 vel minus in quoque acervulo, cortice immutato infossis, globosis, atris, ostiolis brevibus, obtusis, atris, confertim erumpentibus; ascis clavatis, breviter stipitatis, 4-sporis, 45–50 ≃ 9–10; sporidiis hyalinis, continuis, cylindraceis, curvatis, utrinque obtusis, 18–20 ≃ 5–6.

Hab. in ramis resectis Macluræ aurantiacæ, Autumno, Orange, Vaucluse. — In iisdem ramis adest fungus spermogonius. Spermogonia minima, mono- vel pauci-cellularia, poro in medio disci albicantis perforata; spermatiis cylindraceis, rectis vel curvatis, continuis, hyalinis, 5–6 ≃ 1–1,2

103. **Valsa inclinis** Sacc. *V. acclinis* Schw. Syn. Fungi Amer. bor. 531 n. 1389. Cooke Valsei U. S. p. 116, nec Auct. Europ. — Circinata, minuta, peritheciis subquinis, globosis, erectis, ostiolis parallelis stipatis incrassatis prominentibus; sporidiis in apice ascorum conglobatis, allantoideis, 20–25 μ. long.

Hab. in ramis Lauri Sassafras prope Bethlehem, Am. bor.

104. **?Valsa Mahaleb** C. et Ellis New Jersey Fungi Grev. VI, p. 11. 532 — Pustulata; peritheciis 3–4; ascis clavatis; sporidiis majusculis.

Hab. in ramis Pruni Mahaleb, New Jersey. — Specimina immatura ergo species dubia.

Subgen. *Leucostoma* Nits. Pyr. Germ. p. 221.

Stroma corticale, infra linea nigra circumscriptum; discus sæpius albus v. cinereus v. flavidus. — Nonnullæ species mihi imperfecte cognitæ forte ad *Euvalsas* transferendæ.

105. **Valsa nivea** (Hoffm.) Fr. Summ. Veg. Scand. p. 411, Nits. Pyr. 533 Germ. p. 224. *Sphæria nivea* Hoffm. — Stromate conico-truncato vel fere cylindraceo, leviter protuberante peridermio adnatis, cortici leviter immersis, 1–1,5 mill. diam., disco orbiculari, farinaceo, niveo; peritheciis 4–12 in singulo stromate, monostichis vel spermogonio centrali circumpositis, subsphæroideis, minutis, collis tenuibus ostiolisque subprominulis, sparsis, raro confertis vel in circulo dispositis, subsphæroideis, atris, minimis; ascis elongatis,

8-sporis, 48-60 ≃ 8-9; sporidiis subdistichis, cylindraceis, curvulis, 12-14 ≃ 3. — Spermogonia (*Cytispora nivea* (Pers.)) disco niveo, poro plerumque unico, multilocularia, spermatiis fusoideo-elongatis, curvulis, 6 ≃ 1, tandem in cirrhos rubro-hyacinthinos expulsis.

Hab. in cortice ramorum Populi tremulæ, P. nigræ, P. fastigiatæ, P. canescentis in tota fere Europa et Amer. boreali. — Var. *tetraspora:* ascis fusoideis, 40 ≃ 6-7; sporidiis quaternis distichis, 15-17 ≃ $2^1/_2$, allantoideis, hyalinis. Cum specie frequens.

106. **Valsa Auerswaldii** Nits. Pyr. Germ. 225. *Sphæria leucostoma* 534
Auct. p. p. — Stromate conico-truncato vel fere hemisphærico, pustulato, plus minus protuberante, cortice interiore vix immerso, peridermio adnato disco suborbiculari, albido, deinde fuscescente; peritheciis in quovis stromate 3-8, monostichis vel circinantibus, substantiæ stromatis sordide luteæ vel pallidæ insculptis, sphæroideis, minutis, collis longiusculis ostiolisque rotundatis vel truncatis, plerumque haud exsertis, sparsis, atris, minutis, tandem poro latiusculo pertusis; ascis elongatis, 8- vel 4-sporis, 40-80 ≃ 8-12; sporidiis conglobatis vel subdistichis, elongatis, valde curvatis vel subrectis, 12-22 ≃ 2,5-3, rarius -5. — Spermogonia (*Cytispora personata* Fr. p. p.) stromatibus perithecigeris similia, sed paullo minora, disco orbiculari, albido, poro vulgo unico, spurie pluriloculariа; spermatiis elongatis, curvulis 6-8 ≃ 2, tandem in cirrhos rubro-hyacinthinos expulsis.

Hab. in ramis Rhamni Frangulæ, rarius in Fago, Betula, Malo et Salice caprea in Germania, Fennia, Italia bor. — In forma *tetraspora salicicola* asci 28-36 ≃ 8; sporidia 16-20 ≃ 3-4.

107. **Valsa Massariana** De Not. Sfer. ital. cent. I, p. 34, n. 37, t. 37, 535
Nits. Pyr. Germ. pag. 221. *Sphæria leucostoma* Auct. p. p. — Stromate e basi late ovali in discum ellipticum, rarius subrotundum attenuato, peridermio adnato per peridermii rimas, transversim directas, erumpente; peritheciis in singulo stromate 8-10 v. pluribus, spermogonio centrali circumpositis, densissime stipatis, mutuaque pressione angulatis, in collum crassiusculum attenuatis; ostiolis in disco ex cinereo fuscescente marginalibus, incrassatis, globosis, atris, poro pertusis; ascis oblongis, sessilibus, tetra- v. octosporis 48-60 ≃ 9-12; sporidiis conglobatis, cylindricis, curvulis, hyalinis, 20-26 ≃ 4. — Spermogonia cytisporoidea; spermatiis allantoideis 6-7 ≃ 1, breve stipitatis.

Hab. in ramis Sorbi Aucupariæ in Gallia, Germania, Italia.

108. **Valsa excipienda** Karst. Myc. Fenn. II. p. 144. — Forma quasi media inter *V. Massarianam* et *V. leucostomam*, ab illa sporidiis minoribus, ab hac stromatibus majoribus, ostiolis marginalibus majoribus, spermogoniis centrum stromatis perithecigeris ut plurimum occupantibus, et spermatiis longioribus differens; ascis 50-60 ≃ 9-12, octosporis, sporidiis 9-12-14 ≃ 3-4; spermatiis 5-8 ≃ 1. 536

Hab. in ramis Sorbi aucupariæ per totam Fenniam et Lapponiam, frequens.

109. **Valsa leucostoma** (Pers.) Fr. Summ. Veg. Scand. p. 411. *Sphæria leucostoma* Pers. Syn. p. 39. *Valsa Persoonii* Nits. Pyr. Germ. 222. — Stromate conico-truncato, erumpente, plus minus protuberante, peridermio adhærente, 1,5-2 mill. cr.; disco rotundato vel subellipsoideo, niveo-pulverulento; peritheciis 3-10, rarius- 20 in quovis stromate, monostichis vel circinantibus, sphæroideis, majusculis, collis longis ostiolisque rotundatis, raro oblongatis, atris parum vel nonnihil exsertis, sparsis; ascis fusoideo-elongatis, 8-sporis, 48-56 ≃ 6-8; sporidiis subdistichis, cylindraceis, curvulis, chlorino-hyalinis, 10-18 ≃ 2,5-3,5. — Spermogonia (*Cytispora leucostoma* (P.) Sacc. *C. nivea* Fuck.) stromatibus perithecigeris similia, plerumque multilocularia, poro in disco ut plurimum unico; spermatiis fusoideo-elongatis, curvulis, 4-5 ≃ 1, demum in cirrhos rubros expulsis. 537

Hab. in ramis Pruni Cerasi, Padi, domesticæ (etiam Persicæ, Oxyacanthæ sec. Fabr.) Sorbi Aucupariæ in tota fere Europa et Amer. boreali.

110. **Valsa Kunzei** Fr. Summ. Veg. Scand. p. 411, *Sphæria Kunzei* Fr. *Sph. Pini* α Schm. et Kunz. — Stromate minuto, e basi ovali in discum ellipticum, rarius subrotundum planiusculum sensim attenuato, per peridermii rimas, transversim directas, erumpente, protuberante, ex substantia e luteo tandem expallente composito; peritheciis in singulo stromate 8-15, monostiche v. fere radiatim nidulantibus, minutis, confertis, subglobosis, collis breviusculis instructis; ostiolis exiguis, atris, nitidulis, nonnihil exsertis, rotundatis v. truncatis et poro angustissimo pertusis, in disco mox fuscescente confertim sparsis; ascis anguste clavatis v. oblongis sessilibus, octosporis, 28 ≃ 4-5; sporidiis conglobatis, cylindricis, curvulis, hyalinis, 7-8 ≃ 1½. — Spermogonia cytisporoidea; spermatiis allantoideis 5 ≃ 1, longiuscule stipitatis. 538

Hab. in ramis corticatis Abietis pectinatæ et excelsæ in Germania, Gallia, Helvetia et Britannia.

111. **Valsa Strobi** Pass. Erb. critt. ital. Ser. II, n. 947. — Stromate 539
e basi orbiculari discoideo, protuberante, 2 mill. diam. disco griseo fusco pustulato, peridermio integro vel stellatim fisso, arcte adhærente, tecto; peritheciis numerosis in parenchymate non mutato nidulantibus; ascis lanceolatis, clavatis, 25 ≃ 3; sporidiis octonis distichis, cylindricis, rectis vel curvulis, hyalinis, 6-7 ≃ 1-1,5.

Hab. in cortice Pini Strobi prope Parmam (Ital. bor.). — A *Valsa Kunzei* stromate crassiore et peritheciis numerosioribus præ ceteris differt, Pass. — « An tamen satis diversa a *V. superficiali* Nits.? ».

112. **Valsa superficialis** Nits. Pyr. Germ. pag. 232. — Stromatibus 540
grandiusculis, basi orbicularibus, in pustulas plerumque dense sparsas immo confluentes, convexas sed circa discum medium majusculum deplanatas v. sæpius impressas protuberantibus, peridermio tenui, disco tantum pertuso, ceterum integerrimo et arctissime adhærente tectis; disco suborbiculari, planiusculo, stromati tamquam imposito, basi constricto, ostiolis minutis, arctissime stipatis, aterrimis, opacis v. nitidulis, rotundatis pæne ex integro formato, hinc inde stromatis substantia parca, ex sulphureo-fuscescente peridermiique laciniis arrectis cincto; peritheciis in singulo stromate numerosis 10-30, minutis, submonostichis, confertissimis sæpeque mutua pressione angulatis, in collum longiusculum, tenuissimum abrupte attenuatis; ascis oblongis v. subclavatis, sessilibus, octosporis, 24-26 ≃ 5; sporidiis conglobatis, tenuiter cylindricis, parum curvatis v. subrectis, subhyalinis, 8-9 ≃ 1½.

Hab. in ramis dejectis levibus Pini Strobi, prope Münster, Germania, rarius.

113. **Valsa duriuscula** Otth, in Nits. Pyr. Germ. p. 234. — Stromate 541
e basi orbiculari in conulum sensim attenuato, plus minus protuberante, peridermio arctissime adhærente poroque exiguo, rotundo tantum pertuso, ceterum integerrimo tecto; peritheciis in singulo stromate 4-8, densissime stipatis valde depressis ac plerumque angulatis, minutis, monostichis v. subcircinantibus, in collum tenuissime cylindricum abrupte attenuatis; stromatis substantia olivascenti-cinerea, parca; ostiolis aterrimis, perexiguis, disculum orbicularem v. rarius ovalem, planum, pulverulento-niveum haud superantibus et in ejus regione centrali gregatim, rarius sparsim ac sine ordine erumpentibus; ascis anguste oblongis v. cylindrico-cla-

vatis, membrana crassiuscula textis, tetrasporis (v. octosporis?), 29–33 ≃ 5; sporidiis subdistichis, cylindricis, parum curvatis, subhyalinis, in ascis tetrasporis 10–12 ≃ 2. — Spermogonia cytisporoidea: spermatiis allantoideis 3 ≃ 1, sterigmatibus ramosis suffultis; cirrhis rubellis.

Hab. in ramis corticatis Fagi sylvaticæ, Heimberg (Helvetia) ubi legis Otth. — Affinis *Valsæ Auerswaldi.*

114. **Valsa diatrypa** Fr. Summ. Veg. Scand. p. 411, Nits. Pyr. Germ. p. 226, *Sphæria diatrypa* Fr. *V. nivea* Fabr. (p. p. in Alno?). — Stromate minuto, e basi orbiculari v. ovali conico-attenuato, truncato, protuberante, pustulato, disculo minutissimo peridermium, poro v. rimula, perforatum, vix superante; peritheciis in singulo conceptaculo 3–7, sæpe spermogonio centrali circumpositis rarius stroma integrum, ordine monosticho, occupantibus, globosis, collis tenuissimis instructis; ostiolis minutissimis, punctiformibus, rotundatis, atris, nunc in disci orbicularis, exigui, albidi margine, nunc contra dense stipatis erumpentibus, vix exsertis; ascis oblongis v. clavatis, sessilibus, octosporis, curvulis, hyalinis, 16–18– rarius –24 ≃ 3–6. — Spermogonia cytisporoidea; spermatiis allantoideis 6 ≃ 2, longe stipitatis; cirrhis rubellis. 542

Hab. in ramis Alni glutinosæ et incanæ in Suecia, Germania, Gallia et Fennia. — In exemplaribus fennicis, sec. Karst. asci 32–40 ≃ 7–8 (p. sporif.); sporidia 15–22 ≃ 2,5–4,5; spermatia 4–6 ≃ 1.

Var. *Hippophaës* Rehm Ascom. n. 270. — Peritheciis in singulo stromate 2–4, spermogonio centrali deficiente, ostiolis in disco minutissimis vix perspicuis; ascis 50 ≃ 9; sporidiis octonis 15 ≃ 3; paraphysibus articulatis. — In ramis Hippophaës in Tyrolia.

115. **Valsa Aquifolii** Nits. Pyr. Germ. p. 231. — Stromatis parte superiore protuberante, e basi suborbiculari, ovali v. angulari sensim in disculum minutum, planissimum, subrotundum conico-attenuata, per peridermium facile solubile, laceratum erumpente, pustulata, lateribus fucata, inferiore in conceptaculo tenui, nigrescente, convexo v. basi deplanato, corticis parenchymati immerso eique arctissime adhærente inclusa; peritheciis in singulo conceptaculo, integrum semper occupantibus, 6–20 ordine monosticho v. radiatim dispositis, minutis, varie compressis, membrana tenui textis, in collum tenuissimum attenuatis, stromatis substantia lutescente stipatis; ostiolis minutissimis, punctiformibus, truncatis, perforantibus, 543

stipatissime confertis disculum plerumque integrum occupantibus, rarius stromatis substantia parca, sordide lutescente disjunctis v. cinctis; ascis anguste clavatis, apice sæpe truncatis, sessilibus, octosporis, 48–60 ≃ 6; sporidiis distichis v. oblique monostichis, cylindricis, curvulis v. subrectis, fuscidulis, 9–12 ≃ 2–2½, rarius 3. — Spermogonia cytisporoidea; spermatiis 6–8 ≃ 1, longe stipitatis.

Hab. in ramis emortuis Ilicis Aquifolii, prope Münster (Germania).

116. **Valsa translucens** De Not. Schema Sfer. pag. 208, Nits. Pyr. Germ. pag. 227, *Sphæria translucens* De Not. Microm. ital. — Stromate conico-truncato, protuberante, pustulato 0,5–1 mill. cr., peridermio arcte adhærente velato; peritheciis in singulo conceptaculo 2–8, plerumque monostichis, sphæroideis, minutis, collis tenuissimis ostiolisque punctiformibus, rotundatis atris plerumque in centro disci confertis, minutissimis; ascis elongatis, sessilibus, 8-sporis, 40–44 ≃ 8; sporidiis conglobatis, cylindraceis, curvulis, 9–14 ≃ 2. – Spermogonia pauci-locularia, disculo albido, fusco-marginato, poro vulgo unico centrali; spermatiis elongatis, curvulis, 4–5 ≃ 1. 544

Hab. in ramulis Salicis babylonicæ, rarius S. fragilis, albæ, pentandræ, purpureæ etc. in Germania, Fennia, Italia et Amer. bor.

117. **Valsa cincta** Fr. Summ. Veg. Scand. p. 411, Nits. Pyr. Germ. p. 228, *Sphæria cincta* Fr. S. M. II, 542. — Stromate majusculo, e basi ovali v. suborbiculari in discum subrotundum v. sæpius ellipticum sensim attenuato, protuberante, pustulato, disco per peridermii rimas, transversim directas, erumpente ceterum peridermio arctissime adhærente tecto, basi nonnunquam linea nigra circumscripto; peritheciis in singulo stromate 6–12, rarius paucis tantum v. numerosis, circa spermogonium centrale circinantibus, raro, spermogonio compresso v. extincto, submonostichis, globosis, majusculis, in stromatis substantia, corticis parenchymate pallidiore v. fere concolore nidulantibus, collis crassis, longiusculis instructis; ostiolis spermogonii centralis discum sordide albidum, immo fuscescentem cingentibus, nonnihil exsertis, globosis v. truncatis, poroque pertusis, majusculis, atris; ascis clavatis v. oblongis, deorsum plus minus attenuatis, octosporis, 52–88 ≃ 9–14; sporidiis conglobatis, subdistichis, rarissime monostichis, cylindricis, curvulis, rectis, hyalinis, 16–20 ≃ 5–6, raro 8–32 ≃ 6–8. — Spermogonia cytisporoidea simplicia v. multilocularia; spermatiis allantoideis, 6–8 ≃ 1,5–2, longiuscule stipitatis. 545

Hab. in ramis Pruni spinosæ, Armeniacæ, Cerasi in Suecia, Germania, Gallia. — Var. *Mali:* ascis clavato-fusoideis, 70–80 ≃ 18, subsessilibus, octosporis; sporidiis allantoideis, 20–30 ≃ 5-6, hyalinis. In cortice Pyri Mali, Malmedy. — Var. *Pruni domesticæ* (Cfr. Fuck. Symb. Myc. App. I, 316): ascis 40 ≃ 5; sporidiis 9–10 ≃ 2; disco candido etc. In ejusdem ramis in Rhenogovia.

118. **Valsa Lauro-cerasi** Tul. Carp. II, 196, Fuck. Symb. Myc. App. II, 315. — Affinis *V. cinctæ*, a qua differt sporidiis in eodem asco allantoidis et subovoideis; cirrhis spermatiorum 6 μ. long. rubescentibus (*Cytispora Lauro-cerasi* Fuck.). 546

Hab. in ramis Pruni Lauro-cerasi, spermogonia vero etiam in petiolis foliorum, in Gallia, Germania, Italia.

119. **Valsa Ceuthosporæ** Cooke Grevill. VII, 113. — Peritheciis 6–8, circinantibus, epidermidem circumcirca sæpe nigrificatam elevantibus; ascis clavatis 40 μ. long.; sporidiis anguste ellipticis minutis, hyalinis, rectis 10–12 μ. long. — Spermogonium refert *Ceuthospora Lauri.* 547

Hab. in ramis Pruni Lauro-cerasi, Forden (Britannia). — Sec. Cooke differt a *V. Lauro-cerasi.*

120. **Valsa abrupta** Cooke in Grev. VII, 83. — Pustulis orbicularibus, applanatis; peritheciis stromate brunneo-pulverulento immersis; collis brevibus; disco erumpente annulo corticali nigro cincto; ascis clavatis; sporidiis allantoideis, circa 12 μ. long. 548

Hab. in ramis Salicis capreæ, Shere (Britannia).

121. **Valsa crocina** Mont. Syll. Crypt. n. 758 et Fl. Alg. p. 472, sub *Sphæria.* — Minuta, subpustulata; peritheciis globosis, cortici immersis, ostiolis stromate cinereo junctis et in discum pulvere crocino suffusum prominulis; ascis perexiguis, 25 μ. long. clavatis, sporidiis 5 ≃ 2, linearibus, rectis aut curvulis. 549

Hab. in cortice ramulorum Oleæ, Aigeria (Durieu).

122. **Valsa caryogena** B. et C. North Am. Fungi n. 872. — Pustulis minutis seriatis, epidermide levi tectis; disco albo; ostiolis materia alba intermixtis; sporidiis allantoideis, 10 μ. long. 550

Hab. in ramis Caryæ, Pensylvania, Am. bor.

123. **Valsa orbicula** B. et C. North Amer. Fungi n. 867. — Minuta, orbicularis, nigro-cincta; ostiolis albo-cinctis; ascis lanceolatis; sporidiis allantodeis, 10 μ. long. 551

Hab. in ramis Salicis, Carol. inf., Am. bor. — Perithecia per epidermidem non nigrificatam transparentia, linea nigra circumdata.

124. **Valsa chlorodisca** C. et E. New Jersey Fungi in Grev. VIII, p. 13. — Pustulis cortice tectis; disco sordide luteo, ostiolis nigris, cylindricis, punctato; ascis clavatis; sporidiis biseriatis, allantoideis, hyalinis 10 μ. longis. 552

Hab. in ramis Caryæ albæ (Hickory), New Jersey, Amer. bor. — Disco lutescente facile dignoscenda species.

125. **Valsa fulvella** B. et Rav. North Amer. Fungi n. 870. — Pustulis cortice arcte inclusis; disco fulvello ostiolis nigris punctato; sporidiis allantoideis. 553

Hab. in ramis Platani occidentalis in Carol. infer. — Pustulæ tumidulæ.

126. **Valsa Linderæ** Peck. 29 Rep. on the St. Mus. — Pustulis minutis, prominulis, sparsis v. gregariis, arcte epidermide cinctis, linea nigra circumscriptis; ostiolis stipatis, brevibus, nigris discum nigricantem obliterantibus; peritheciis sæpius 4-6, cortice interiore nidulantibus; ascis minutis, clavatis; sporidiis octonis, botuliformibus, curvis, 8-12 μ. long. e hyalino luteolis. 554

Hab. in ramis Linderæ Benzoin, Albany (Am. bor.).

127. **Valsa infinitissima** Kalch. et Cooke. Grev. 1880, p. 28. — Innata; stromate corticali circumscripto; peritheciis lageniformibus; ostiolis cylindricis, rectis, sub-elongatis, in stromate fusco exsertis; ascis clavatis, $25 \simeq 5$; sporidiis spermatioideis, curvulis 4 μ. long. 555

Hab. in ramis corticatis in Africa australi. — Asci et sporidia profusa et minutissima.

128. **Valsa munda** B. et C. North Amer. Fungi n. 864. — Subcuticularis, disco parvo, albo-cincto erumpente; ascis lanceolatis; sporidiis allantoideis. 556

Hab. in ramis levibus Corni, Alabama, Am. bor. — Pustulæ ab epidermide infuscata prorsus, salvo disco, tectæ.

129. **Valsa mesoleuca** B. et C. North Amer. Fungi n. 879. — Disco albo, ostiolis nigris cincto vel consperso; sporidiis allantoideis, hyalinis, 20 μ. long. 557

Hab. in ramis Viburni dentati, Pensylvania, Am. bor.

130. **Valsa Viburni** Fuck. Symb. myc. p. 201. — Peritheciis 8-10, circinatis, sine stromate proprio in cortice interiore nidulantibus, ostiolis ovato-conicis, in disco plano et eundem demum totum occupantibus, prominulis, albido-furfuraceis, perforatis; ascis oblongis, sessilibus, 8sporis; sporidiis farctis, cylindraceis, curvatis, simplicibus, utrinque obtusis, $12 \simeq 2^1/_2$. 558

Hab. in ramis exsiccatis Viburni Lantanæ, rarius in Jura (Germania et Helvetia) et in Cadore (Ital. bor.).

131. **Valsa tessella** Fr. Summa V. S. 411. Cooke Valsei Un. St. 117 559 (nec *Crypt. tessella* (Pers.) Karst.). — Laxe circumscripta; perithecis circinantibus globosis, ostiolis erumpentibus solitariis determinate distantibus (sæpius in quincuncem dispositis) convexis, nitidis, dein umbilicatis, linea nigra epidermidem penetrante cinctis (Fr.); ascis fusoideis; sporidiis allantoideis 10–12 μ. long.

Hab. in ramis corticatis Salicum in Suecia et Amer. bor. — Sporidia sec. specimina Friesiana a cl. Cooke descripta.

132. **Valsa Welwitschii** Berk. Enum. Fungi collect. Portugal. p. 10. 560 — Pustulis parvis circumscriptis; stromate pallido; peritheciis globosis immersis, albo-farctis, collis longiusculis; ostiolis convexis subpunctiformibus; ascis tenellis, sporidiis curvulis.

Hab. in cortice levi Ulmi, Cintra, Lusitania. — Asci breves, delicatissimi; sporidia octona, minuta, elongata, curva.

133. **Valsa macrostoma** Rehm Ascom. n. 173. Diagn. p. 45. — Stro- 561 matibus ellipticis, 3 mill. long. 1–1,5 lat., peridermio transversim fisso perspicuis; ostiolis in disco lutescente punctiformibus atris; non v. parum extantibus, subcircinantibus; peritheciis in stromate infra nigrolimitato, corticali, usque 20, subglobosis; ascis 8sporis, clavatis, 50 ≃ 7–8; sporidiis elliptico-oblongis, vix curvatis, 6–8 ≃ 3; paraphysibus filiformibus.

Hab. in ramis siccis Pruni spinosæ in Franconia bavarica.

134. **Valsa Colliculus** (Wormsk.) Cooke Valsei of. U. S. p. 115. *Sphæ-* 562 *ria Colliculus* Worms. Fr. S. M. II. 389. — Convexa, pustulata; peritheciis in orbem stipatis, incusis; ostiolis conjunctis in disco minuto punctiformi atro; ascis mtnutis; sporidiis allantoideis hyalinis exiguis, 5–6 μ. long.

Hab. in ramis Pini pygmææ in Kamtschatka (Asia); in cortice Pini, New York (Am. bor.). — *V. pustulatæ* similis. Pustulæ orbiculatæ, hemisphæricæ, eumorphæ, ex epidermide tegente cinereæ, magnitudine seminis cannabini: dissectæ monstrant perithecia circinantia, atra, stromate tenui tantum tecta quorum colla brevia, valde convergentia, juncta in discum minutum, orbiculatum, planum ex ostiolis minutissimis confertis papillæformibus compositum. An potius e sect. *Euvalsæ?*

EUTYPELLA Nits. (ut subgen.) Pyr. Germ. p. 163. Sacc. Consp. Gen. Pyr. p. 4 (Etym. ab *Eutypa*, quam confer.). — Stroma valseum

in cortice duriore v. ligno immersum, nigrolimitatum. Perithecia monosticha v. polysticha, numquam simpliciter circinantia; ostiola sulcata. Asci longe stipitati, 8-spori. Sporidia luteola v. hyalina. Status conid. (in *Scoptria*) et spermog. in plerisque noti.

Subg. *Scoptria* Nits. Pyr. Germ. p. 83 (ut gen.).

Status conidicus superficialis isarioideus. Spermogonia nulla nota.

1. **Eutypella isariphora** (Nits.) Sacc. *Scoptria isariphora* Nits. Pyr. Germ. p. 84. — Stromatibus perithecigeris maturis alte protuberantibus, forma plus minus irregulari, verruciformi, peridermii laciniis cinctis, maxima vero ex parte liberis, rugosis, sordide nigricantibus, intus albidis, haud raro confluentibus ac deformibus; peritheciis in singulo stromate 10–12, rarius-20, sine ordine ac polystiche stipatis, minutis, subglobosis, in collum longum attenuatis; ostiolis longissime exsertis, crassiusculis, cylindricis, obtusis v. apicem versus incrassatulis obscureque quadrisulcatis, flexuosis, nunc in stromatis vertice fasciculatim erumpentibus, nunc marginalibus, radiatim divergentibus v. secundis; ascis minutis, anguste clavatis, pedicellatis, octosporis, 36 ≃ 5 p. sporif.; pseudoparaphysibus crassis ac tenerrimis, articulato-septatis, longissimis; sporidiis in asci parte superiori distichis, in inferiori monostichis, cylindricis, nonnihil curvatis v. subrectis, dilute fuscescentibus 8–10 ≃ $2^1/_2$. — Conidia in stromate conico-elevato subsuperficiali, in sterigmatibus isarioideo-fasciculatis viridulo-griseis, penicillatim divergentibus acro-pleurogena, fusiformia, recta 8–10 ≃ 2–3, hyalina. 563

Hab. in ramis Cratægi Oxyacanthæ prope Münster, Germ. (Nitschke), sociis conidiis.

Subg. *Eutypella* Nits. Pyr. Germ. 163.

Status conidicus nullus notus. Spermogonia *Cytisporæ* species sistentia.

2. **Eutypella cerviculata** (Fr.) Sacc. *V. cerviculata* Fr. Summ. Veg. Scand. p. 411. Nits. Pyr. Ger. p. 174. Sacc. Myc. Ven. Sp. t. XIII. f. 1–4. De Not. Sfer. ital. t. 33. *Sph. cerviculata* Fr. — Stromate valseo, e basi suborbiculari v. irregulari sæpeque angustata subcylindrico v. conico-truncato, cortici omnino immerso et ab ejus parenchymate expallente v. specie immutato formato, sed strato extimo, nigricante limitato, ligno adnato; peritheciis in singulo stro- 564

mate numerosis, submonostichis, dense stipatis, minutis, subglobosis mutuaque pressione angulatis, collo longiusculo instructis; ostiolis abbreviatis, valde incrassatis, globosis, rugosis, aterrimis, sulcis plerumque 5-6 subtiliter ac radiatim striatis, in discum v. crustulam aterrimam, tuberculatam, suborbicularem v. sæpius irregularem, peridermium arcte adhærens, perforatum paullo tantum superantem confertissime stipatis; ascis anguste clavatis, longe pedicellatis, octosporis, 30 ≃ 4-5, p. sporif.; sporidiis in asci lumine utrimque attenuato subdistichis v. conglobatis, cylindricis, incurvatis, pallide fuscescentibus, 6-7 ≃ $1^1/_2$-2; «stromate spermogonico forma et dimensione ascophoris subsimili, extus nigro, rugoso (non vero ostiolato) intus fusco-rubescente, minute pluriloculari, loculis subglobosis; spermatiis filiformibus, arcuatis 20-22 ≃ $^3/_4$, sterigmatibus cylindraceis sursum attenuatis 20 ≃ 1 fasciculatis suffultis, tandem in cirrhos rubellos protrusis».

Hab. in ramis crassioribus Carpini Betuli in Germania, Helvetia, Italia boreali.

3. **Eutypella Padi** (Karst.) Sacc. *V. Padi* Karst. Fung. Fenn. n. 355. 565
Myc. Fenn. II. 134. *V. padina* Nits. Pyr. Germ. p. 172. — Stromate conico, disco orbiculari, ellipsoideo vel angulato, latit 1-2 mill.; peritheciis 6-40 in singulo stromate, densissime stipatis, sphæroideis, exiguis, collis longiusculis ostiolisque basi connatis, oblongatis, brevibus, obtusis, alte 4-5-sulcatis, atris instructis; ascis cylindraceo-clavatis, 24-34 ≃ 4 p. sporif.; sporidiis subdistichis, elongatis, curvulis, dilutissime fuscescentibus, 6-8 ≃ 1-1,5.

Hab. in ramulis Padi in Fennia meridionali usque in mediam et prope Driesen, Germania.

4. **Eutypella Prunastri** (Pers.) Sacc. *V. Prunastri* (Pers.) Fr. Summ. 566
Veg. Scand. p. 411. Nits. Pyr. Germ. 170. An De Not. Sf. ital. t. 35 (ostiola enim non sulcata), *Sphæria Prunastri* Pers. — Stromate valseo, e basi suborbiculari v. elliptica pulvinato, lentiformi v. subconico, atro, ligno adnato, ætate juniore corticis parenchymate velato, peridermium fissum plerumque transversim erumpente; peritheciis in singulo stromate numerosis, sine ordine stipatis, subinde polystichis, centralibus erectis, concentricis, marginalibus, adscendentibus, conniventibus, subglobosis v. mutua pressione angulatis, in collum, pro situ variæ longitudinis attenuatis; ostiolis incrassatis, sulcis 3-5, plerumque 4, alte exaratis, nunc brevibus, erectis confertissimis, nunc contra longioribus, divergentibus v. secundis, flexuosis; ascis anguste clavatis, longe pedicellatis, octo-

sporis, 20–32 ≃ 3–4 p. sporif.; sporidiis in asci lumine, apice angustato, subdistichis, cylindricis, curvulis, pallidis v. nonnihil fuscescentibus, 6–8 ≃ 1½. — Spermogonia sistunt *Cytisporam rubescentem* Fr. p. p.

Hab. in ramis emortuis Pruni spinosæ, P. Cerasi, P. Armeniacæ, P. insititiæ, Amygdali Persicæ in tota Europa et America boreali.

5. **Eutypella ventricosa** (Fuck.) Sacc. *V. ventricosa* Fuck. Symb. mycol. pag. 125. — Omnium maxima! Conceptaculis sparsis aggregatisque, erumpentibus, demum liberis, ventricosis, irregulare globosis conicisve, atro-fuscis, lævibus, 2–5 mill. diam., apicem versus conicis; spermatiiferis inordinato-multicellularibus, cellulis oblongis, verticalibus, griseis, cirrhis per ostiolum commune expulsis, pallide-flavis; spermatiis cylindraceis, curvatis, 3 ≃ 1; peritheciis ascigeris demum in iisdem conceptaculis nidulantibus, subglobosis, ostiolis e conceptaculi vertice exsertis, cylindraceis, atris; ascis ellipticis, subsessilibus, 8sporis, 32 ≃ 6; sporidiis farctis, cylindraceis, curvatis, continuis, 8 ≃ 2, hyalinis. 567

Hab. in truncis corticatis vetustis Ulmi campestris et Quercus, rarius prope Usingen et Hattenheim, Germania.

6. **Eutypella Sorbi** (Schm.) Sacc. *V. Sorbi* (Schmidt) Fr. Summ. Veg. Scand. p. 411. Nits. Pyr. Germ. pag. 168. De Not. Sf. it. tab. 34. *Sphæria Sorbi* Schm. Myc. Heft. I. 59. — Stromate valseo, e basi orbiculari, rarius ovali, pulvinato, depresse subgloboso, ostiolorum fasciculo, basi constricto, coronato, sub peridermio, mox relaxato, ostiolis erumpentibus perforato varieque fisso, ligno insidente, cortice interiore primitus velato, deinde libero, atro; peritheciis in singulo stromate numerosis, sine ordine, immo polystiche denseque stipatis, circa centralia erecta concentricis, convergentibus, globosis, collo pro situ plus minus longo, ostiolis longiusculis, crassis, sulcatis, tri-pentagonis, basi connatis, apice liberis sæpeque divergentibus instructis; ascis anguste clavatis, longe ac tenuiter pedicellatis, octosporis, 40–48 ≃ 4–6 p. sporif.; sporidiis in asci lumine et apicem versus attenuato conglobatis, cylindricis curvulis, dilute fuscescentibus, 7–8 ≃ 2–2½. — Spermogonia cytisporoidea (*Cytispora rubescens* Fr. p. p.); spermatiis allantoideis 4 μ. long., aliisque 35–45 μ. long.; cirrhis rubescentibus. 568

Hab. in ramis Sorbi aucupariæ, S. domesticæ in Suecia, Belgio, Gallia, Italia, Helvetia, Lapponia, Fennia.

7. **Eutypella pentagona** (Pers.) Sacc. *S. pentagona* Pers. Syn, p. 42. 569

Fr. S. M. II. 407. — Circinata, ostiolis rectis teretibus rugosis ut plurimum pentagonis.

Hab. in ramis Sambuci Ebuli? in Germania (Pers.), in ramis Lauri Sassafras in Amer. bor. (Schwein.). «Ad majores et elegantiores hujus familiæ pertinet; perithecia tota corticis substantia tecta; ostiola atro-nitida, in cylindrum crassum obtusum approximata, primo sulcato-angulata, demum distinctius 4–5-gona. Pers. l. c. — Species mihi ignota et a *S. Sorbi* non diversa videtur; distinctas tamen varii statuunt. Ad hanc vero v. ad *S. prunastri* juvenilia specimina mihi missa pertinent. *Speciem tam evolutam in mollibus Ebuli caulibus eniti posse,* Thomas totus sum! Sed Schweinitzii stirps, a me non visa, forsan melior et sic restituenda hæc species! Fr. l. c. — Revera vix v. non diversa ab *E. Sorbi.*

8. **Eutypella rhizophila** (Nits.) Sacc. *Valsa rhizophila* Nits. Pyr. 570
Germ. pag. 175. — Stromate valseo, irregulari, e basi suborbiculari vel angulata, nunc angustata nunc contra dilatata, plerumque subcylindrico et vix verticem versus attenuato, cortici interiori innato et ab ejus parenchymate immutato v. tandem expallente formato, nigro-limitato, ligno adfixo, peridermium cum cortice duro connato, varie fissum erumpente et ab ejus laciniis lateribus cincto, haud raro confluente; peritheciis in singulo stromate 5–20, erectis v. adscendentibus, sine ordine ac densissime stipatis, exiguis, globosis v. compressis, collo, pro situ peritheciorum, plus minus longo instructis; ostiolis brevibus, nonnihil incrassatis, sulcis 3–4 alte exaratis, plerumque confertissimis, immo in corpus irregulare, tuberculatum connatis; ascis anguste clavatis, longe pedicellatis, octosporis, 30–40 ≃ 5–6 p. sporif.; sporidiis conglobatis, cylindricis, plus quam solito curvatis, subhyalinis, 5–6 ≃ 1.

Hab. in radicibus Fagi sylvaticæ p. Münster (Nitschke) et Aceris p. Neuchâtel (Morthier).

9. **Eutypella stellulata** (Fr.) Sacc. *V. stellulata* Fr. Summ. Veg. Scand. 571
p. 311. Nits. Pyr. Germ. p. 165, *Sphæria stellulata* Fr. *S. fascicularis* Wallr. *S. monadelpha* Fr. p. p.? — Stromate obtuse conoideo vel subsphæroideo, raro subeffuso, latit. plerumque 1–2 mill.; peritheciis paucis vel numerosis in quovis stromate, plerumque dense stipatis, symmetricis vel rarius concentricis, subsphæroideis, e mutua pressione angulatis, minutis, collis convergentibus ostiolisque nunc brevibus, exiguis, nunc plus minus elongatis, rugosis, sulcatis vel 3–6-gonis, omnino vel basi tantum connatis instructis;

ascis cylindraceo-clavatis, 40–60 ≃ 5–6 p. sporif.; sporidiis conglobatis vel subdistichis luteolis, fusoideo-elongatis, curvulis vel subrectis, 8–12 ≃ 1,5–2. — Spermogonia multilocularia, stromate majore inclusa; spermatiis filiformibus curvatis, 20–25 μ. longis, tandem in cirrhos aureos protrusis.

Hab. in ramis Ulmi campestris et U. effusæ in Suecia, Fennia, Britannia, Gallia, Germania, Italia, Belgio, Amer. bor. (ubi sec. auct. quoque in Fraxino, Moro, Liquidambar, Xanthoxylo).

10. **Eutypella angulosa** (Nits.) Sacc. *V. angulosa* Nits. Pyr. Germ. p. 173. *Sphæria Prunastri* β. *Betulæ* Somm. — Stromate conico, disco plerumque ellipsoideo vel triangulari, latit. 2–4 mill.; peritheciis in quovis stromate plerumque numerosis, monostichis, ovoideis, minutis, collis longiusculis, crassis ostiolisque nunc brevibus, erectis, confertissimis, nunc contra longioribus (interdum 1 mill. longit. æquantibus), divergentibus vel secundis, flexuosis, apice obtusiusculis vel leniter attenuatis, atris, rugosis vel leviter 3–5-sulcatis; ascis cylindraceo-clavatis, longe pedicellatis, 28–40 ≃ 4–5 p. sporif.; sporidiis subdistichis, elongatis, curvulis vel subrectis, subhyalinis, 6–8 ≃ 1,5–2. 572

Hab. in cortice Betulæ albæ in Lapponia orientali, Germania et Italia boreali.

11. **Eutypella similis** (Karst.) Sacc. *Valsa similis* Karst. Myc. Fenn. II. p. 134 (nec Nits.). *V. alnifraga* Nits. Pyr. Germ. 171. nec Wahl. — Stromate valseo, e basi orbiculari hemisphærico v. obtuse conico, ligno adnato, corticis parenchymate tecto, minuto, nigricante, ostiolorum fasciculo peridermium perforatum v. varie fissum superante; peritheciis in singulo stromate 4–12 (plerumque 5–8), monostichis, conniventibus, exiguis, stipatis, globosis, collis brevibus, ostiolis incrassatis, elongatis, in fasciculum, basi valde constrictum connatis, sulcis 2–4 alte exaratis instructis; ascis cylindrico-clavatis, longe pedicellatis, octosporis 24–30 ≃ 4 p. sporif.: sporidiis in asci lumine utrinque attenuato conglobatis, cylindricis, plus quam solito incurvis, subhyalinis, 5–6 ≃ 1. 573

Hab. in ramis emortuis Alni glutinosæ prope Driesen, Germania.

12. **Eutypella alnifraga** (Wahl.) Sacc. *V. alnifraga* (Wahlenb.) Fr. Summa V. S. 411, Karst. Myc. Fenn. II. p. 133 (nec Nits.) *V. similis* Nits. Pyr. Germ. p. 171. — Stromate valseo, e basi orbiculari v. ovali depresse conico, obtuso, ligno adnato, corticis pa- 574

renchymate tecto, per peridermium, plerumque arcte adhærens, perforatum v. rimis minutis, trasversim directis, fissum erumpente, minuto, nigricante, subinde confluente; peritheciis in singulo stromate paucis tantum (4–9), circa centrale, erectum circinantibus ac convergentibus v. sine ordine densissimeque stipatis minutis, subglobosis, collis brevibus, ostiolis incrassatis, rotundatis v. oblongis, brevibus, obtuse tri-quadrisulcatis, aterrimis, basi connatis, apice divergentibus instructis; ascis oblongo-clavatis, longe pedicellatis, octosporis, 33–40 ≃ 5 p. sporif.; sporidiis in asci lumine apicem versus attenuato subdistichis, cylindricis, nonnihil curvatis v. rectis, dilute fuscescentibus, 8–10 ≃ $1^1/_2$–2.

Hab. in ramis crassioribus Alni glutinosæ et incanæ Driesen, Germ.; Belluno, Ital. bor., Jakobstad, Fennia. — *E. Sorbi* affinis.

13. **Eutypella Brunaudiana** Sacc. Mich. I. p. 505. — Acervulis erumpentibus, prominulis, 1–$1^1/_4$ mill. diam. corticis laciniis arcte cinctis; peritheciis monostichis, stromate albido immersis, globulosis, $^1/_3$ mill. diam., nigris; ostiolis assurgentibus, cylindricis, apice rotundato integro pertusis, discum nigrum verruculosum formantibus; contextu perithecii sinuoso-parenchymatico, olivaceo-fuligineo; ascis clavato-fusoideis, sursum parum angustatis, apice, tunica incrassata, rotundatis, filiformi-stipitatis, aparaphysatis, octosporis, p. s. 70–80 ≃ 12, stipite 60 lgo; sporidiis distichis, botuliformibus 10–12 ≃ 2, 2-guttulatis, e hyalino lutescentibus. 575

Hab. in ramis corticatis Ribis rubri prope Saintes (Gallia). 576

14. **Eutypella ventriosa** (C. et E.) Sacc. *V. ventriosa* C. et E. New Jersey Fungi in Grevill. VI. p. 23 (nec *V. ventricosa* Fuck.) — Convexa, gregaria; pustulis cortice tectis, ostiolis congestis, leniter sulcatis; peritheciis paucis, magnis, nigro cinctis; ascis clavatis; sporidiis allantoideis, fuscidulis, 10 μ. longis.

Hab. in cortice Ailanthi, New Jersey, Amer. bor. — Cum conceptacula dilabuntur, linea nigra circumscribens in matrice manet. — « An eadem ac *E. Ailanthi* Sacc.? ».

15. **Eutypella Ailanthi** (Sacc.) *V. Ailanthi* Sacc. Mycol. Ven. Spec. p. 130, t. XII, fig. 51–56. — Conceptaculis plerumque oblongis inæqualibus e 30–50 peritheciis constantibus, epidermide rupta cinctis, cortice duriore immersis; stromate lignescente zona nigra limitato; peritheciis ovato-subrotundis, vix $^1/_2$ mill. diam., atris extus albido-furfuraceis, collo cylindraceo plus minus brevi, ostiolis capitellatis, 3–5-sulcato-rugosis, discum parum scabrosum plano- 577

convexum efformantibus, non prominentibus; ascis crassiuscule clavatis, longissime stipitatis, 100 ≃ 6, parte sporifera 50 ≃ 6, 8sporis; sporidiis inordinate distichis, cylindraceis, parum curvatis, utrinque rotundatis, 1-guttulatisque, luteolis, 12 ≃ $2^1/_2$–3. — Status spermogonicus Cytisporam referens: spermogoniis pluriloculariibus nigris stromate lignescente nigro-limitato insidentibus; spermatiis filiformibus, incurvis, hyalinis, 15 ≃ $^1/_2$, demum in cirrhos aureos intricatos, capillares protrusis.

Hab. in cortice ramorum Ailanthi glandulosæ Patavii et Selva (It. bor.). — Affinis *E. cervicullatæ* et *E. stellulatæ*, a quibus forma et magnitudine ostiolorum et sporidiorum satis differt.

16. **Eutypella grandis** (Nits.) Sacc. *V. grandis* Nits. Pyr. Germ. p. 164. 578
Sacc. Myc. Ven. Sp. t. XII, f. 57–59. *Sph. Radula* Pers. Syn. p. 37 (?), *V. Radula* (Pers.) Cooke Valsei U. S. p. 114. — Stromate valseo, grandi, forma valde irregulari v. fere diatrypeo, cortici crasso, durissimo, ligneo immerso, parte immersa corticis substantia parum v. vix mutata, nigro-limitata formata, erumpente, strati corticalis supremi laciniis, plerumque irregulariter fissis cincto, immo pro parte tecto, superficie inæquali verrucoso-rimoso, ostiolis exasperato; perithecis in singulo stromate numerosis, magnis, ovatis, subglobosis v. mutua pressione angulatis, irregulariter monostichis v. fere distichis, collis plerumque longis, ostiolis incrassatis, validis, nunc elongatis ac longitudinaliter sulcatis nunc abbreviatis, depresse conicis v. rotundatis et sulcis plerumque 6 leviter ac radiatim exaratis, tandem poro latiusculo perforatis instructis; ascis cylindrico-clavatis, longe pedicellatis, octosporis, 30 ≃ 7; sporidiis in asci lumine utrimque maxime angustato subdistichis, cylindricis, curvulis v. subrectis, fuscis, 9–10, rarius 13 ≃ $2^1/_2$–3.

Hab. in cortice duriore Quercus in Germania et Aceris, Padova (Ital. bor.), Populi, Carolina (Amer. bor.). — Sec. Schw. Syn. Amer. bor. n. 1369 stromata intus albicantia, sed non nigro-circumscripta; ostiola sæpe seriato-fasciculata. An ergo species Caroliniana diversa ab europæa?

17. **Eutypella elegans** Niessl in Thuem. Contr. Myc. Lusit. n. 524. 579
— Stromate valseo, ligno immerso, perithecis sine ordine confertis, di–tristichis, globosis vel mutua pressione angulosis, numerosis, majusculis, ostiolis fasciculatis crassiusculis, radiatim quatuor–sex sulcatis, atris, nitidis; ascis clavatis, longe pedicellatis, 30–35 ≃ 6–7 p. sporif., octosporis; sporidiis subdistichis, cylindraceis, curvulis vel subrectis, fuscescentibus, 7–9 ≃ 2,5.

Hab. in Castaneæ sativæ cortice, Matta d'Alcarraque prope Coimbra, Lusitania (Moller).

18. **Eutypella extensa** (Fr.) Sacc. *V. extensa* Fr. Summ. Veg. Scand. p. 411, Nits. Pyr. Germ. p. 166, Sacc. M. V. n. 180, *Sphæria extensa* Fr. S. M. II. 381. p. p. — Stromate valseo, depresse subgloboso, ligno adnato, per peridermium plerumque facile solubile et rimis, transversim directis, fissum erumpente, sæpe, peridermio nec non cortice interiore fibroso atroinquinato secesso, in ramo nudato, superficie nigrificato libero, aterrimo; perithecis in singulo stromate 5–18, dense stipatis, minutis, subglobosis, plerumque mutua pressione angulatis, monostichis, circa centrale circinantibus, in collum breve attenuatis; ostiolis in fasciculum, basi plerumque constrictum, connexis, incrassatis, liberis, nunc brevibus, nunc elongatis, obsolete v. evidenter tri- v. quadrigonis; ascis cylindrico-clavatis, longe pedicellatis, octosporis, 32–36 ≃ 5–6 p. sporif.; sporidiis in asci lumine utrimque attenuato subdistichis, cylindricis, curvulis v. subrectis, dilute fuscescentibus, 5–6 ≃ 2–2½. 580

Hab. in ramis Rhamni cathartici prope Niemberge (Germania), prope Treviso (Italia bor.) et in Suecia.

19. **Eutypella confluens** (Nits.) Sacc. *V. confluens* Nits. Pyr. Germ. p. 167. — Stromatibus e basi maxime dilatata, ovali, rarius orbiculari depresse conicis v. convexis, confertis sæpissime in series longitudinaliter directis, v. sine ordine dispositis et basi v. omnino confluentibus ligni superficiei, tandem atroinquinatæ, adnatis nec immersis, per corticem erumpentibus, v. in ramis nudatis liberis, ex fusco tandem aterrimis; perithecis in singulo stromate 3–12, minutis, stipatis, subglobosis, monostichis, collis brevibus, ostiolis nunc satis elongatis, nunc brevioribus, in fasciculum, basi plerumque constrictum, collectis, confertissimis, incrassatis, tri- v. quadrigonis instructis; ascis anguste clavatis v. oblongis, apice sæpe truncatis, longissime pedicellatis, octosporis, 32–48 ≃ 4–5 p. sporif.; sporidiis in asci lumine utrimque angustato conglobatis, cylindricis, vehementer curvatis v. rarius subrectis, subhyalinis, 7–9 ≃ 1,5–2. 581

Hab. in ramis siccis quercinis, Œstrich, Rhenogovia.

20. **Eutypella Atropæ** (Mont.) Sacc. *V. Atropæ* Mont. Syll. Crypt. n. 762. Fl. Alg. n. 464, sub *Sphæria.* — Innata, stromate corticali ligneo albicante conceptaculo nigro tandem cupulari aperto cincto; perithecis paucis globosis, collis oblongis conjunctis exsertis; ostiolis rugosis; ascis tenuissimis fusiformibus 8-sporis, sporidiis linearibus curvulis, hyalinis. 582

Hab. in cortice Atropæ frutescentis, Mostaganem (Durieu). — Affinis *E. cerviculatæ*.

21. **Eutypella juglandina** (C. et Ell.) Sacc. *V. juglandina* C. et Ell. 583
New Jersey Fungi in Grevill. V. p. 92, Cooke Valsei of Un. St. 113. — Peritheciis paucis (3–5) ad basim niveo-pulverulentis; ostiolis prominentibus, profunde sulcatis; ascis lanceolato-clavatis; sporidiis allantoideis, 10–12 ≃ 3.

Hab. in ramis Juglandis regiæ, New Jersey, Amer. bor. — Certe diverse a *Sph. juglandicola* Schw., pustulæ enim numquam lineares.

22. **Eutypella fraxinicola** (C. et P.) Sacc. *V. fraxinicola* C. et P. 584
29 Rep. of New Jersey St. Mus., Cooke Valsei U. S. p. 112. — Pustulata peridermium perforans; peritheciis ovoideis, nigris, circinantibus; ostiolis longiusculis, convergentibus, interdum quadrisulcatis; ascis clavatis; sporidiis minutis in ascorum apice conglobatis, leniter curvis, 8–12 μ. long., succineis.

Hab. in ramis Fraxini americanæ, Tyre, New Jersey (Amer. bor.).

23. **Eutypella Leaiana** (Berk.) Sacc. *Sphœria* (Valsa) *Leaiana* Berk. 585
Dec. of Fungi n. 97, Cooke Valsei of U. S. 113. — Innata, circinnata; stromate pallido, laxo e cortice et ligno linea circumscripto; peritheciis ellipticis; ostiolis subconfertis elongatis lineolatis, granulatis; ascis lanceolatis, octosporis; sporidiis minimis, curvulis, 7–8 μ. long. pallide olivaceis.

Hab. in ramis Carpini, Carol. inf. (Rav.), Ohio (Lea), Amer. boreali.

24. **Eutypella Berchemiæ** (Cooke) Sacc. *V. Berchemiæ* Cooke Valsei 586
of U. St. 112. *V. syngenesia* v. *Berchemiæ* Curt. in litt. — Peritheciis valseis..... ostiolis sulcatis, collis abbreviatis; ascis octosporis; sporidiis allantoideis 8–10 μ. long., pallide olivaceis.

Hab. in ramis Berchemiæ in Carol. inf., Amer. bor. — A *Valsa syngenesia* et *V. monticulosa*, quibus affinis etiam habitu recedit.

25. **Eutypella goniostoma** (B. et C.) Sacc. *Valsa goniostoma* B. et 587
C. in Curtis Cat. p. 142 (?) Cooke Valsei of Un. St. 113. — Peritheciis valseis.....; collis abbreviatis, ostiolis sulcatis; ascis octosporis; sporidiis allantoideis, dilute olivaceis 8–11 μ. long.

Hab. in ramis, Carolina, Amer. bor. (Curtis).

26. **Eutypella exanthemoides** (Mont.) Sacc. *V. exanthemoides* Mont. 588
Syll. Crypt. n. 756 et Fl. Alg. p. 372, sub *Sphœria*. — Pustula-

ta; peritheciis globoso-ovoideis erectis circinantibus stromate corticali nigro tectis, ostiolis in disco minuto pulverulento approximatis subtetragonis; ascis cylindraceo-clavatis, 100 = 10, sporidiis linearibus curvulis, 10 μ. long.

Hab. in cortice Anagyridis fætidæ, Alger (Durieu).

27. **Eutypella microspora** (C. et E.) Sacc. *Valsa microspora* Cooke et Pl. in Grev. VII. 82 (nec Crouan). — Disco erumpente orbiculari, furfuraceo, brunneo, ostiolis circinantibus sulcatis punctulato; perithecis 12–20; ascis subclavatis 30–40 μ. long.; sporidiis minutissimis, hyalinis, allantoideis, circ. 5 μ. long. 589

Hab. in ramis Betulæ in Britannia (Plowright). — Asci et sporidia e minoribus generis.

28. **Eutypella Myricæ** (C. et C.) Sacc. *Valsa Myricæ* C. et E. New Jersey Fungi, in Grev. VII. p. 8. — Perithecis globosis, linea nigra varia circumscriptis, ostiolis cylindricis, in disco plano atro subjunctis; ascis cylindrico-clavatis; sporidiis minutis, allantoideis, 10–12 μ. longis. 590

Hab. in ramis Myricæ in Amer. bor., New Jersey. — Habitus potius *Diatrypes*.

29. **Eutypella monticulosa** (B. et C.) Sacc. *Valsa monticulosa* B. et C., Cooke Valsei of Un. St. 112. — Perithecis valseis, collis abbreviatis, ostiolis sulcatis; ascis octosporis; sporidiis allantoideis 8–10 μ. long. 591

Hab. in ramis Magnoliæ glaucæ, Carol. Am. bor. (Curtis).

30. **Eutypella Platani** (Schw.) Sacc. *V. Platani* (Schw.) Cooke Vals. U. S. 113. *Sph.* (circumscript.) *Platani* Schw. Syn. Am. bor. n. 1372. — Pustulata in plagas maximas aggregata sub epidermide, sed pustulis singulis multo minoribus quam in prioribus, non revera confluentibus; arcte tecta epidermide circum ostiola stellatim fissa; ostiolis sulcatis in fuscescenti disco, primum punctiformibus, demum subprominulis, tum disco obliterato; stromate albescente multo crassiori quam in prioribus et interdum in disco prorumpente; peritheciis aterrimis splendentibus per stroma quidem assurgentibus sed subtus in ipso cortice, absque stromate nidulantibus, vix nigro-circumscriptis; ascis octosporis; sporidiis allantoideis 10–12 = 3, subhyalinis. 592

Hab. frequentissima erumpens ex epidermide Platani, Bethlehem (Americæ borealis).

31. **Eutypella tumidula** (C. et P.) Sacc. *Valsa tumidula* C. et Peck. in New. York Museum Rep. Cooke Valsei of Un. St. 113. — Erum- 593

pens, peridermium decoloratum et inflatum perforans, denique discum nigrum exerens; peritheciis 4-6, ligno semiimmersis, linea nigra circumscriptis; ostiolis obtusis, 4-sulcatis; ascis clavatis; sporidiis linearibus, rectis curvulisve obtusis, olivaceo-hyalinis, 10-12 μ. long.

Hab. in ramis Cratægi et Platani, New York et New Jersey.

32. **Eutypella Tosquinetii** (West) Sacc. *Valsa Tosquinetii* West., Lamb. Fl. Myc. Belgiq. II, p. 375. — Pustulis elevatis, angulosis, nigro-fuscis, superficie inæqualibus, epidermide rupta cinctis; peritheciis sphæricis, nigris, 8-15, stromate albo exceptis; ostiolis plus minus elongatis, teretibus, discum paululum excedentibus et verruculosum reddentibus; ascis fusoideis, longe stipitatis; sporidiis biseriatis cylindricis, rectis curvulisve, hyalinis. 594

Hab. in ramis emortuis Acer.is Pseudo-platani, Mirwart (Belgio). — « An *Diatrype?* »

33. **Eutypella tetraploa** (B. et C.) Sacc. *Valsa tetraploa* B. et Curt. Cooke Handb. n. 2478. — Peritheciis aggregatis; ostiolis 20-30, subquadrisulcatis, in fasciculum compactum conjunctis; sporidiis minutis, allantoideis, 10 μ. long. 595

Hab. in ramis Pruni Mahaleb, Macluræ etc. in Britannia, Carolina, New Jersey in Amer. boreali. — *Eutypellæ stellulatæ* paraffinis.

34. **Eutypella rugiella** (C. et E.) Sacc. *Valsa rugiella* C. et E. in Grev. V. p. 92. — Peritheciis (10-20) minutis, in pustulas orbiculares congestis; ostiolis leniter sulcatis; ascis minutis lanceolatis; sporidiis exiguis, allantoideis, 5-6 μ. long., pallide succineis. 596

Hab. in ramis Aceris rubri, New Jersey, Am. bor. — Habitus *V. tetraploæ*. sed sporidia minora.

35. **Eutypella corynostoma** (B. et R.) Sacc. *Valsa corynostoma* B. et Rav. North. Amer. Fungi n. 871. — Pustulis cortice abditis minutis, et vix eum inflantibus; ostiolis fasciculatis, sulcatis, clavatis; sporidiis allantoideis, 6-8 ≃ 1,5. 597

Hab. in cortice Aceris rubri in Carolina inf., Am. bor.

36. **Eutypella innumerabilis** (Peck.) Sacc. *Valsa innumerabilis* Peck. 30 Rep. on. the St. Mus. — Pustulis minutis, numerosis, sæpius dense gregariis seriatisque; peritheciis 4-10, cortice interiore nidulantibus; ostiolis brevibus, stipatis, 4-sulcatis, nigris; sporidiis stipatis cylindricis, curvis, obtusis, succineis, 10 μ. long. 598

Hab. in ramis Ulmi, Greenbush (Amer. bor.). — In ramis tenellis perithecia potius sparsa quam seriata.

37. **Eutypella Bonariensis** Speg. Fung. Arg. I. p. 181. — Stromati- 599
bus nigrescentibus, subrotundis vel elongatis, 3-6 mill., inæqualibus, nunc primo tectis, dein erumpentibus, nunc ligno vel cortice duriori immersis; peritheciis 15-40 in eodem stromate ovato-subrotundis $^1/_3$ mill. extus atris, intus cinerascentibus in colla cylindracea e stromate longiuscule exserta; ostiolo ruguloso donatis et discum spinuloso-hirtum efformantibus; ascis clavatis, minutis, part. spor. 15 ≃ 3, pedic. 15-20 ≃ 1; octosporis aparaphysatis; sporidiis distichis, valde curvatis, arcuato-falciformibus 5-6 ≃ $^3/_4$-1, utrinque 1-guttulatis, dilute olivaceis (ut in *Dialrypella quercina*).

Hab. ad ramos dejectos Celtidis Talæ et Salicis Humboldtianæ, Barracas del Sur, Argent. (Amer. merid.). — Interdum stromata fere euvalsea.

38. **Eutypella anthracina** Speg. F. Arg. Pug. IV, n. 124. — Stroma- 600
tibus orbiculari-ellipticis, 1-1,5 mill. diam., erumpentibus, densiuscule sparsis, prominulis, intus extusque aterrimis, ex ostiolis concoloribus undique prominulis, dense verruculosis; peritheciis paucis, monostichis, globosis sæpe e mutua pressione ellipsoideis 200-250 μ. diam., membranaceis, atro-olivaceis; ascis clavatis sursum obtuse rotundatis p. spor. 35-40 ≃ 6, deorsum in pedicellum parte sporifera longiorem attenuatis, octosporis, paraphysibus mucosis, fluxilibus obvallatis; sporidiis distichis, allantoideo-curvulis, utrinque obtusiusculis 8-9 ≃ 2, ac 1-guttulatis, subchlorinis.

Hab. in ramis dejectis putrescentibus Scutiæ buxifoliæ in sylvis australioribus « Montes largos » dictis (Argent. Am. austr.).

39. **Eutypella paradisiaca** Speg. F. Arg. Pug. IV, n. 125. — Stro- 601
matibus primo tectis dein erumpentibus prominulo-exsertis, extus atris intus candidis, minutis 1-1,5 mill. diam., irregulariter suborbicularibus, sæpe ob confluentiam difformibus, densiuscule sparsis; peritheciis subglobosis v. subellipticis 250-300 μ. diam., atris extus griseolis, 4-11-gregariis, monostichis, ostiolis quandoque vix exsertis, quandoque longiusculis, crassiusculis, atris, nitidis, levibus v. anulatim rugulosis, apice rotundato-umbilicatis; ascis clavatis sursum rotundato-subtruncatis deorsum longiuscule attenuato-pedicellatis p. spor. 30-35 ≃ 5-6, ped. 35-40 ≃ 2-3; octosporis, aparaphysatis; sporidiis distichis, cylindraceo-allantoideis, utrinque obtusiusculis, ac 1-guttulatis, 7-8 ≃ 2, dilute chlorinis. — Cum *Eutypa ludibunda* Sacc. etsi affinis, non comparanda.

Hab. in ramis emortuis Meliæ Azedarach in dumetis, Bañado S. José de Flores, Arg. Amer. austr.

VALSELLA Fuck. Symb. Myc. p. 203 (Etym. a *Valsa*, quam cfr.). — Stromata valseum corticale, plerumque nigrolimitatum; ostiola integra; discus sæpius pallens; asci sessiles, polyspori; sporidia allantoidea, hyalina. — Spermogonia, si adsunt, cytisporea.

1. **Valsella amphoraria** (Nits.) Sacc. *V. amphoraria* Nits. Pyr. Germ. p. 236. — Stromatibus exiguis, peridermium superpositum in pustulas minutas, vertice poro angusto pertusas protrudentibus, cortici interiori basi tantum insculpatis v. adnatis ac, peridermio avulso, superficialibus, raro peridermio adhærentibus, dense ac sine ordine sparsis, forma exacte regulari, ampullaceis, infra nigrolimitatis; ostiolis in disculum orbicularem v. angularem, planum dense stipatis, minutissimis, punctiformibus, rotundatis, atris angustissime perforatis; peritheciis pro ratione majusculis monostiche v. subcircinatim ordinatis, subglobosis in quoque acervulo 3–6; ascis anguste clavatis v. subcylindricis, sessilibus, apice rotundatis v. truncatis, myriosporis, 60–68- multo rarius 48–80 ≃ 8–10; sporidiis numerosissimis, conglobatis, cylindricis, parum curvatis v. rectis, hyalinis v. dilute fuscescentibus, 6–7 ≃ 1½. 602

   Hab. in trunco et ramis Fagi sylvaticæ prope Münster, Germania.

2. **Valsella furva** (Karst.) Sacc. *V. furva* Karst. Mycol. Fenn. II., p. 149. — Stromate conico-truncato, plus minus protuberante peridermio adhærente, 0,7 mill. cr. disco orbiculari vel subellipsoideo, sordide fuscescente, minutissimo; peritheciis in singulo stromate 2–7, subcircinantibus, subsphæroideis, majusculis collis brevibus ostiolisque rotundatis, atris, exiguis, confertis vel sparsis, poro lato pertusis: ascis cylindraceo-clavatis, 48–54 ≃ 6–7; sporidiis conglobatis, rectis vel leniter curvulis, cylindraceis, 5–8 ≃ 1–1,5. 603

   Hab. in ramulis Alni incanæ exsiccatis in Mustiala (Fennia). — A *V. melastoma* disco mox sordide fuscescente, ostiolis dein poro lato pertusis sporidiisque paullo majoribus recedens. Conceptacula subinde per peridermium tenuius translucent.

3. **Valsella Laschii** (Nits.) Sacc. *Valsa Laschii* Nits. Pyr. Germ. p. 235. — Stromatibus minutissimis, basi exacte orbicularibus, peritheciophoris in discum perexiguum, punctiformem, orbicularem ac sordide albicantem sensim conico- v. rarius abrupte attenuatis, peridermio tenuissimo, translucido, nitido, poro centrali, discum excipiente pertuso, ceterum arctissime adhærente tectis; peritheciis in singulo stromate 2–4, subcircinatim dispositis, perexiguis, globosis v. depressis; ostiolis oculo armato solum perspicuis, in di- 604

sculo medio plerumque dense gregata, vix prominentibus, rotundatis, aterrimis, nitidis; ascis cylindrico-clavatis, sessilibus, polysporis, 42 ≃ 7–8; sporidiis conglobatis, pallide lutescentibus, parum curvatis v. subrectis, tenuiter cylindricis, 11–13 ≃ 2½. — Spermogonia cytisporea consociata.

Hab. in ramulis Corni sanguineæ pr. Driesen, Germania (Lasch).

4. **Valsella Cydoniæ** Rehm, in Thuem. Contr. Myc. Lusit. n. 283. — 605
Perithecis 10–12 in cortice interiore nidulantibus, monostichis, ostiolo poro conspicuo, pertuso, crasso peridermium diffindente, majusculis, fusco-atris; ascis sessilibus, oblongis, hyalinis, 50–58 ≃ 8; sporidiis 32 in asci superioris parte, distichis, cylindraceo-curvatis, utrinque acutatis, continuis, fuscidulis, 6–7 ≃ 2,5–3.

Hab. ad ramos aridos Cydoniæ vulgaris, Alpenduradas pr. Coimbra, Lusitania, raro (Mesnier).

5. **Valsella minima** Niessl Not. Kr. Pyr. p. 53. — Stromatibus mi- 606
nutissimis 0,5–0,8 mill. vix æquantibus, lentiformibus, cortici interiori adnatis et penitus immersis, duris, sordide atris; disculo exiguo niveo coronatis; perithecis paucis 3–5 in singulo stromate, circinantibus, vel stipatis, globosis vel compressis, membranaceis; ostiolis brevissimis haud distinctis, punctiformibus, vix superantibus; ascis anguste clavatis 36–44 ≃ 6–7, polysporis; sporidiis farctis, cylindricis, curvatis, subyalinis, 8–10 ≃ 2.

Hab. in ramis emortuis Viburni Lantanæ, Voitsberg, Morav. (Niessl). — A *V. Laschii* disculo niveo, ascis sporidiisque minoribus recedit.

6. **Valsella Salicis** Fuck. Symb. myc. p. 203, t. II, fig. 36 *a. b.* — 607
Spermogonium; Cytisporam multicellularem referens; cirrhis pallidis, angustissimis; spermatiis cylindraceis, curvatis, triplo minoribus quam ascosporis; perithecis 8–10 majusculis, in conceptaculo scutiformi, vel hemisphærico, demum sublibero, lineam lato, atro, extus griseo-pulveraceo, conceptaculis demum vertice laceratis, laciniisque extus pallidioribus circumdatis, ostiolo aterrimo, prominulo, globoso, disco minutissimo, vix ullo, primo albicante, demum evanescente; ascis oblongis, stipitatis, 56 ≃ 8; sporidiis farctis, cylindraceis, curvatis, 8 ≃ 1½, hyalinis.

Hab. in ramis corticatis Salicis auritæ, prope Œstrich, Rhenogovia. — Affinis *V. fertili.*

7. **Valsella adhærens** Fuck. Symb. myc. App. II. p. 36. — Conce- 608
ptaculis immersis, minutis, 1–1½ mill. lat., depressis, irregulari-

ter orbicularibus, semper peridermio adhærentibus, stromate fuscescente, peritheciis 3–5, stipatis, minutis, atris, ostiolis in disculis valde elevatis, transverse erumpentibus, semper ellipticis, fuscis emersis, ovatis, papillatis, atris; ascis oblongis, sessilibus, polysporis, 54 ≃ 6–7; sporidiis cylindraceis, continuis, parum curvatis, hyalinis, 6 ≃ 1.

Hab. in ramis corticatis Betulæ albæ; prope Œstrich, Rhenogovia. — A *V. polyspora* tute distinguenda.

8. **Valsella nigro-annulata** Fuck. Symb. myc. App. I, pag. 317. — 609
Conceptaculis gregariis, sæpe confluentibus, minutis, vix 1 mill. lat., distincte orbicularibus, nigro-annulatis, quandoque annulo prominulo, plano-depressis, sub corticis epidermide nidulantibus, stromate albo-cinereo; peritheciis plerumque 4, minutis, globosis, collo brevi; ostiolis in disco minutissimo, sordido, quandoque coronato, punctiformibus, atris; ascis oblongis, 12–16sporis, 28 ≃ 8; sporidiis farctis, cylindraceis, curvatis, simplicibus, hyalinis, 10 ≃ $2^1/_2$.

Hab. in ramis siccis corticatis Salicis capreæ, raro, prope Œstrich, Rhenogovia.

9. **Valsella Rosæ** Fuck. Symb. myc. App. I. p. 317. — Conceptaculis 610
spermatiferis atris, suborbicularibus, subdepressis, poro communi albo apertis, multicellularibus; spermatiis cylindraceis, curvatis, continuis, 6 ≃ $1^2/_2$; conceptaculis ascigeris gregariis, raro confluentibus, 1 mill, diam., orbicularibus oblongisque, obtuso-conicis ventricosisque, aterrimis, perithecia 6–8, globosa, dense stipata, nigra includentibus, ostiolis in disco minuto, orbiculari ellipticove, niveo, punctiformi-prominulis, atris; ascis oblongis, polysporis, 32 ≃ 8; sporidiis cylindraceis, curvatis, continuis, hyalinis, 10 ≃ 3.

Hab. in ramis tenuioribus siccis Rosæ rubiginosæ, prope Œstrich, Rhenogovia.

10. **Valsella clopima** (Fr.) Sacc. *V. clopima* Fr. Summ. Veg. Scand. 611
p. 412? Karst. Myc. Fenn. II, 138. — Stromate hemisphærico, depresso, pustulato, fere superficiali, peridermio tenui nigrefacto, disco minutissimo, suborbiculari tantum pertuso, arctissime adhærente tecto; peritheciis 4–16 in quovis stromate, monostichis vel subcircinantibus, subsphæroideis, fuscis, ostiolis sparsis, rotundatis vel suboblongatis, atris, nitidulis vel opacis, poro latiusculo pertusis instructis; ascis cylindraceo-clavatis, sessilibus, 40–46 ≃ 6; sporidiis cylindraceis, curvulis vel subrectis, hyalinis, 5–8 ≃ 1–1,5.

Hab. in cortice Pyri sylvestris vetusto in Fennia australi passim et in Suecia.

11. **Valsella fertilis** (Nits.) Sacc. *V. fertilis* Nits. Pyr. Germ. p. 238. — 612
Stromatibus minutis, e basi ovali v. suborbiculari, conico-attenuatis, truncatis, protuberantibus, pustulatis, dense gregariis, basi non raro confluentibus; peritheciis conceptaculum integrum occupantibus, plerumque 5-6, rarius 4-10 singulo stromate inclusis, monostichis, sæpe radiatim dispositis v. circa centrale circinantibus, confertis, globosis v. mutua pressione angulatis, minutis, in collum tenuissimum attenuatis; ostiolis minutissimis, punctiformibus, atris in disci albo-pruinosi, orbicularis, rarius ovalis medio confertim emergentibus maculamque aterrimam efficientibus, nec exsertis; ascis oblongis v. fere cylindricis, sessilibus, polysporis, 56-64 ≃ 7-9; sporidiis conglobatis, cylindricis, curvulis v. subrectis, hyalinis, 6-7 ≃ 2-2½. — Spermogonia cytisporea; spermatiis allantoideis, 5-7 ≃ 2, stipitatis; cirrhis rubentibus.

Hab. in ramis et trunco Salicis capreæ prope Münster, Germania.

12. **Valsella leptostroma** Fuck. Symb. Mycol. App. I, 317. — Con- 613
ceptaculis sub epidermide sparse nidulantibus, 1 mill. lat., orbicularibus, planissimis, nigris, intus albidis, perithecia minutissima, globosa, 2-4 includentibus, ostiolis 2-4, in disco orbiculari, minutissimo, albido, punctiformibus, nigris; ascis oblongo-ovatis, sessilibus, 12-16 sporis, 32 ≃ 8; sporidiis farctis, cylindraceis, curvatis, continuis, hyalinis, 12 ≃ 3.

Hab. in ramis tenuioribus exsiccatis Loniceræ Xylostei, raro, Johannisberg et Hallgarten, Rhenog.

13. **Valsella clypeata** Fuck. Symb. mycol. 203 et App. I. 317. — 614
Conceptaculis clypeatis, oblongis, 1½ mill. long., 1 mill. lat., corticis parenchymati immersis, atris, epidermidem pustulato-inflantibus, intus olivaceis, disco orbiculari sed plerumque elliptico, per epidermidem fissam prominulo, albo; peritheciis 4-8 in conceptaculo dense stipatis, globosis, minutis, atris, ostiolis in disco demum punctiformi papillæformibus, non exsertis, atris; ascis sessilibus, oblongis, polyspóris, 52 ≃ 7½. — Spermogonia multicellularia, deplanata, poro albo; spermatiis allantoideis, 6 ≃ 1.

Hab. in ramis siccis corticatis Rubi fruticosi prope Œstrich, Rhenog. — Habitus *Clypeosphæriæ!*

14. **Valsella myriotheca** Pass. Funghi Abiss. p. 187 t. V, fig. 8. — 615
Pustulis sparsis v. interdum confluentibus, tandem erumpentibus, disco orbiculari plano stuppeo fulvo-lurido; peritheciis membranaceis parenchymate corticali immersis, stipatis, stromateque stup-

peo obvolutis, perpendicularibus copiosis, ovato-oblongis in collum longiusculum attenuatis, ostiolis clavato subcapitatis, non extantibus; ascis copiosis aparaphysatis obovato-lanceolatis, subsessilibus, 50 ≃ 6, polysporis; sporidiis stipatis, allantoideis, curvis, 6 ≃ 1-1,3 hyalinis.

Hab. in ramis aridis Acaciæ, Keren, Abyssinia (Beccari).

15. **Valsella polyspora** (Nits.) Sacc. *Valsa polyspora* Nits. Pyr. Germ. p. 238. — Stromate exiguo, e basi orbiculari, depresse conico, omnino immerso nec erumpente v. pustulato, disco rotundo peridermium perforante idque paullo tantum v. vix superante, primo cinereo-albido, deinde fuscescente; peritheciis in singulo stromate 2-8, circa spermogonium circinantibus, globosis, minutis, in collum tenuissimum attenuatis; ostiolis minutissimis, punctiformibus, atris, discum non superantibus; ascis anguste clavatis, sessilibus, polysporis, 56 ≃ 8-10; sporidiis conglobatis, cylindricis, curvatis v. subrectis, hyalinis, 9-12 ≃ $2^1/_2$. 616

Hab. in ramis Betulæ prope Münster, Germ. (Füisting).

16. **Valsella melastoma** (Fr.) Sacc. *Sph. melastoma* et *V. melastoma* Fr. S. M. et Summ. Veg. Scand. p. 411. — Stromate conico-attenuato, plus minus protuberante, peridermio plerumque adhærente, circ. 1 mill. diam., disco orbiculari vel subellipsoideo, minutissimo, primum cinereo-albido, demum fuscescente; peritheciis in singulo conceptaculo 2-6, subcircinantibus, subsphæroideis, majusculis collis brevibus, tenuissimis ostiolisque perexiguis, rotundatis, atris, confertis, raro sparsis; ascis cylindraceo-clavatis, 30-50 ≃ 6; sporidiis conglobatis, cylindraceis, leniter curvulis vel subrectis, 4-7 ≃ 1. 617

Hab. in ramulis Pyri Mali in Suecia, Germania, Fennia.

EUTYPA Tul. Sel. Fung. Carp. II. p. 52 (Etym. *ev* bene et *typoo* insculpo, ob perithecia matrice profunde insculpta). — Stroma late effusum ex matrice (ligno v. cortice duriore) plus v. minus mutata, sæpius atroinquinata efformatum, initio hyphis conidiophoris vestitum. Perithecia stromati immersa v. semiimmersa plerumque dense et late gregaria. Asci octospori, stipitati, aparaphysati. Sporidia subhyalina. — Spermogonia, ubi adsunt, cytisporoidea.

A) Ostiola radiatim sulcata.

1. **Eutypa Acharii** Tul. Carp. II. 53, t. VII, f. 8-20. *Sph. eutypa* Fr. *Sph. decomponens* Sow. *Sph. astroidea* Fr. *V. eutypa* (Ach.) Nits. Pyr. Germ. p. 130, Sacc. Myc. Ven. Sp. p. 129, t. XIV, f. 32-34. 618

— Stromate longe lateque effuso ramosque decorticatos sæpe ambiente, ligno alte immerso idque non solum in superficie, sed intus quoque nigrificante, primo pilis atrobrunneis, simplicibus, septatis, breviusculis, conidiferis dense villoso, deinde glabro, aterrimo, ostiolis numerosissimis, plus minus prominulis exasperato; conidiis lineari-cylindricis, curvulis, hyalinis, in pilis conidiferis solitarie v. fasciculatim acrogenis; peritheciis monostichis dense sparsis, globosis, minutis, ligno, plerumque alte immersis, collis longis v. brevibus, cylindricis, tenuibus ostiolisque paullo incrassatis, minutis, nunc nonnihil elongatis, conicis, nunc omnino obtusis, depressis sed semper rimis 2–5 (plerumque 4) plus minus alte exaratis, angulatis tantum v. radiatim partitis instructis; ascis anguste clavatis, longissime pedicellatis, octosporis 21–28 ≃ 4–5 p. sporif.; sporidiis in asci lumine, utrimque angustato subdistichis, cylindricis, curvulis, dilute fuscescentibus, 5–7 ≃ 1. — Spermogonia in stromate recenti convexa unilocularia; spermatiis allantoideis.

Hab. in ramis crassioribus decorticatis Fagi, Psedoplatani, Populi, Carpini, Pruni, in tota Europa et Amer. bor.

2. **Eutypa tuyutensis** Speg. Fungi Arg. IV, n. 123. — Stromate per 619
ramos corticatos late ambiente, lignum superficie atro-inquinante lineaque stromatica fere, usque ad medullam producta, nigro-limitato; peritheciis, globosis, majusculis 0,5–0,8 milí. diam., ligno immersis, solitariis v. 3–5 valsatim aggregatis, membranaceis, atro-olivaceis, contextu sinuose parenchymatico, olivaceo, ostiolo parvo corticem perforante ac vix exserto, levi, atro-carbonaceo donatis; ascis numerosissimis, elliptico-subobovatis, parvulis 10–15 ≃ 2,5–4, octosporis, aparaphysatis; sporidiis distichis v. polystichis, allantoideis, leniter v. vix curvulis 3,5–4,5 ≃ 0,7, utrinque obtusiusculis et 1-guttulatis, dilute chlorinis.

Hab. in ramis emortuis dejectis Sambuci australis in sylva australiore «Monte de Pila» dicta, (Argent. Amer. austr.).

3. **Eutypa aspera** (Nits.) Fuck. Symb. Myc. pag. 214. *V. aspera* Nits. 620
Pyr. p. 132. *Sphæria eutypa β. aspera* Fr. E. *polycocca β. aspera* Karst. — Stromate effuso, in ramis decorticatis maculas ambientes sæpeque confluentes efficiente ac ligni superficiem, colore ex fusco v. cinereo tandem sordide nigricante tingentes, ostiolis exasperato, ceterum lævi, immo nitidulo; peritheciis, stromatis plagis sterilescentibus interjectis, gregarie ac sine ordine sparsis, monostichis summo ligni strato haud fucato immersis, exiguis, depresse globosis, collo brevissimo, ostiolo incrassato, conico, acutiu-

sculo v. subhemisphærico, rimis plerumque 4 exarato instructis; ascis anguste clavatis, longissime pedicellatis, octosporis, 44–48 ≃ 5 p. sporif.; sporidiis in asci lumine, utrimque attenuato subdistichis, cylindricis, curvulis, dilute fuscescentibus, 8–12 ≃ 2.

Hab. in ramis Loniceræ Xylostei, nigræ, etruscæ et Sorbi Aucupariæ in Britannia, Fennia, Germania, Gallia, Italia.

4. **Eutypa cyclospora** (Nits.) Sacc. *V. cyclospora* Nits. Pyr. Germ. p. 128. — Stromate longe lateque effuso, ligno omnino innato ejusque superficiem inquinante; peritheciis ligni strato supremo, haud fucato omnino immersis, monostichis, laxe distributis, globosis, minutis, in collum brevissimum abrupte attenuatis ostioloque incrassato, elongato, cylindrico-conico, acutiusculo v. truncato-obtuso, rugoso, angulato ac longitudinaliter rimoso v, a latere compresso instructis; ascis anguste clavatis, longissime pedicellatis, octosporis, 28–32 ≃ 6–7 p. sporif.; sporidiis in asci lumine utrinque attenuato, conglobatis, cylindricis, maxime curvatis et annulum fere integrum plerumque formantibus, dilute fuscescentibus 6 ≃ 2. 621

Hab. in ligno vetusto Fagi sylvaticæ, Schwerin, Germ.

5. **Eutypa crustata** (Fr.) Sacc. Fungi Ven. Ser. IV. p. 16. *Sphæria crustata* Fr. S. M. II, 376. *Valsa crustata* (Fr.) Nits. Pyr. Germ. p. 135. — Stromate effuso, ramos sæpe ambiente, eorumque cortici innato et cum eo in crustam superficie tandem nigricantem, peritheciorum ostiolis valde protuberantibus asperrimam, immo fere spiculosam concrescente; peritheciis in corticis interioris parenchymate monostiche nidulantibus, grandiusculis, globosis, nunc densissime ac sæpe gregatim stipatis, nunc pro parte, præsertim in stromatis ambitu, sparsis, subsolitariis, peridermio arctissime adhærente, plus minus emergentibus, depresso, rimis 3–4 plus minus alte exarato, immo tri- v. quadricocco, aterrimo et primo pilis conidiferis, fuscis, brevibus, simplicibus, septatis sæpe circumdato instructis; ascis anguste clavatis, longissime pedicellatis, octosporis, 32 ≃ 4–5 p. sporif.; sporidiis in asci lumine utrinque attenuato subdistichis, cylindricis v. subrectis, pallide fuscescentibus, 8–10- rarius 6–12 ≃ 2. 622

Hab. in ramis crassioribus Aceris Pseudoplatani in Scania et Germania, Fagi sylvaticæ in Italia boreali.

6. **Eutypa subtecta** (Fr.) Fuck. Symb. mycol. p. 214. *Sphæria subtecta* Fr. S. M. II. 376. *V. subtecta* (Fr.). Nits Pyr. p. 134. — Stromate effuso, maculæformi, brevi, forma varia, irregulari, sæpe confluente, rarius in ramis decorticatis ligno elevato innato, plerumque cum corti- 623

ce coalito eumque plus minus elevante et in superficie mox atroinquinante, primum pilis fusco-atris, conidiferis, simplicibus, septatis, suberectis dense villoso; conidiis cylindricis, utrinque acutiusculis, curvulis, unicellularibus, hyalinis, 30–34 ≃ 3; peritheciis in corticis interioris parenchymate nidulantibus, monostichis, plerumque dense stipatis, majusculis, globosis v. nonnihil depressis, collo subnullo, ostiolo minuto, hemisphærico, aterrimo, nitidulo, tandem rimis 4 leviter sulcato, prominulo instructis; ascis angustissime clavatis, immo subcylindricis, longissime pedicellatis, octosporis, 28–44 ≃ 5–7 p. sporif.; sporidiis in asci lumine utrinque valde attenuato, subdistichis, cylindricis, curvulis, dilute fuscescentibus v. subhyalinis, 8–12 ≃ 2.

Hab. in ramis corticatis Aceris campestris, A. Pseudoplatani (et Salicis, t. Cooke), in Suecia, Germania et America boreali.

7. **Eutypa subcutanea** (Wahl.) Sacc. *S. subcutanea* Wahl. Lapp. 520. 624
Fr. S. M. II. 371. Conf. Nits. Pyr. Germ. p. 148. — Effusa, tecta, emergens, peritheciis in stromate fuliginoso-atro nidulantibus; ostiolis prominulis convexis distantibus quadri-sulcatis; sporidiis allantoideis, 12–14 ≃ 3–3,5, fusco-olivaceis.

Hab. sub epidermide ramorum Salicis phylicifoliæ per omnem Lapponiam. — Tumores sistit usque ad pollicem latos, sed sæpius minores, determinatos fere, supra corticem interiorem nidulantes, superne cum epidermide vix mutata connatos; stroma crassiusculum, fuscum, non circumscriptum; perithecia subglobosa, erecta, in centro confertiora et fere polysticha, ostiolis majusculis æqualiter distantibus. — Affinis *E. nitidæ* et *E. subtectæ*.

8. **Eutypa polycocca** (Fr.) Karst. Myc. Fenn. II. 127. *Sph. lata* β. 625
polycocca Fr. S. M. II, 370. *Valsa polycocca* Nits. Pyr. Germ. p. 129. — Stromate longe lateque effuso, sæpe ramos decorticatos ambiente ligno haud vel parum elevato innato ejusque superficiem æqualem, lævem, colore ex fusco vel cinereo nigricante tingente; peritheciis monostichis, ligno haud mutato omnino immersis, subsphæroideis, latit. 0,5 mill., collis brevibus vel brevissimis ostiolisque incrassatis, grandiusculis, obtusissimis, primo hysteriiformibus, tandem 3-5-, plerumque 4-coccis; ascis clavatis, longissime pedicellatis, 40–50 ≃ 5–6, p. sporif.; sporidiis subdistichis, fusoideo-elongatis, vel subrectis, dilute fuscescentibus, 8–12 ≃ 2–3.

Hab. in ramis corticatis Pruni spinosæ, Münster, Germ., Salicis et Betulæ in Fennia et Lapponia.

9. **Eutypa polymorpha** (Nits.) Sacc. *V. polymorpha* Nit. Pyr. Germ. p. 128. — Stromate plus minus effuso, plerumque brevi, maculæformi, ligno v. cortici crassiori omnino immerso et hæc, ceterum immutata, plus minus atroinquinante; peritheciis in substrato haud fucato nidulantibus, monostichis nunc gregarie sociatis, stipatissimis, nunc contra laxe sparsis, collo brevissimo, ostiolo incrassato, cylindrico, truncato, rarius conico, recto v. incurvo, immo flexuoso, rugoso ac rimis 2–4 per longitudinem plerumque evidenter exarato instructis; ascis anguste clavatis, longissime pedicellatis, octosporis, 40–52 ≃ 6–10 p. sporif.; sporidiis in asci lumine utrinque angustato conglobatis, cylindricis, in arcum curvatis, dilute fuscescentibus, 8–10 ≃ 2–2½. 626

Hab. in cortice et ligno Platani et Ulmi, Schwerin et Münster, Germania.

10. **Eutypa maura** (Fr.) Sacc. *Sphæria maura* Fr. S. M. II. 370. *Valsa maura* (Fr.) Nits. Pyr. Germ. p. 133. — Stromate late effuso, ligno vetusto plus minus elevato profunde immerso extus intusque nigrificante superficie lævigata tandem expallente, ostiolis numerosissimis, densissime sparsis nigropunctato; peritheciis alte immersis, monostichis, globosis, majusculis, plerumque confertissime nidulantibus, collo longiusculo, crasso, ostiolis haud incrassatis, hemisphæricis, immo subglobosis, raro longius extantibus, tunc fere conicis, aterrimis, lævibus, nitidulis, tandem leviter quadrisulcatis instructis; ascis anguste clavatis, longissime pedicellatis, octosporis, 30 ≃ 5–6 p. sporif.; sporidiis in asci lumine utrinque angustato subdistichis, cylindricis, nonnihil curvatis, pallide fuscescentibus, 8–10 ≃ 2. 627

Hab. in ligno Pruni spinosæ etc. in Suecia et Germania. 628

11. **Eutypa aulacostoma** (Knnze et Fr.) Sacc. *Sphæria aulacostoma* Kunze et Fr. in Linnæa 1830, p. 545. — Peritheciis inæqualibus, in stromate tenui contiguo tecto fuliginoso stipatis, ostiolis in tuberculis discretis erumpentibus, sulcatis, 4–5-gonis.

Hab. in ramis siccis, Surinam (Weigelt). — Affinis *E. latæ*, sed perithecia magis irregularia, confertiora, tubercula erumpentia.

12. **Eutypa tetragona** (Duby) Sacc. *Sph. tetragona* Duby Bot. Gall. p. 703. Mont. in Fl, Alg. p. 460. *Cryptosphæria tetragona* C. et De Not. — Effusa interrupta, tecta; peritheciis gregariis aut aggregatis, globosis, cortice lignoque nigrificato immersis, fuscis intus albidis; ostiolo prominulo crasso primatico-conico acute 4-costato; 629

ascis cylindrico-clavatis; sporidiis octonis, cylindrico-subreniformibus, pellucidis, 2-guttulatis.

Hab. ad ramos Sarothamni, Calycotomes, Anthyllidis, Genistæ, in Gallia, Hispania, Algeria. — *Eutypæ latæ* affinis ex Mont.

13. **Eutypa referciens** (Nits.) Sacc. *V. referciens* Nits. Pyr. Germ. p. 137. — Stromate effuso, inæquali, tumido, sub peridermio summoque corticis strato evoluto, eisque dejectis libero v. pro parte corticis parenchymate tecto, extus intusque nigricante, ligno adnato; peritheciis in stromatis partibus magis tumentibus confertissime stipatis, subpolystichis, majusculis, globosis rarius depressis v. mutua pressione angulatis, collo pro situ, nunc longiusculo, nunc subnullo, ostiolo minuto, depresso, rotundato, rarius obtuse conico, tandem rimis 3–5 leviter ac radiatim exarato instructis; ascis angustissime clavatis, longissimeque pedicellatis, octosporis, 32–40 = 5–7 p. sporif.; sporidiis in asci lumine utrinque longe attenuato subdistichis, immo fere monostichis, cylindricis, curvatis v. subrectis, subhyalinis, 8–10- rarius 12 = 2–2$^1/_2$. 630

Hab. in ramis Pruni Padi prope Münster, Genistæ Scorpii, Vaucluse Galliæ.

14. **Eutypa leprosa** (Pers.) Sacc. *Sph. leprosa* Pers. in Fr. S. M. II. 365. ? *Eut. uberrima* Tul. sec. Nits., *Valsa leprosa* (Pers.) Nits. Pyr. Germ. p. 136. — Stromate effuso, cum cortice crassiore, cui innato, coalito et ab ejus substantia tamquam formato, sed strato extimo, atro cincto; peritheciis corticis interioris parenchymati immutato v. in peritheciorum ambitu dealbato immersis, submonostichis, irregulariter sparsis, hinc inde congestioribus, majusculis, globosis v. mutua pressione nonnihil angulatis, sæpe plus minus protuberantibus, tunc peridermio arcte adhærente, interdum fisso tectis, collo brevi, ostiolo minuto, obtusissimo, rotundato, tandem quadrisulcato instructis; sæpissime ostiolis 2–5 subjunctis per pedermii rimam, late ellipticam, communem erumpentibus ac parum v. vix prominentibus; ascis anguste clavatis, longissime pedicellatis, octosporis, 30–36 = 8–10 p. sporif.; sporidiis in asci lumine plerumque subito angustato subdistichis v. conglobatis, subcylindricis curvulis, fuscescentibus, 10–13 = 2$^1/_2$–3. 631

Hab. in cortice Tiliæ europeæ in Suecia, Germania et Gallia, rarius.

15. **Eutypa ludibunda** Sacc. Mich. I. p. 15 et 501. *V. referciens* Sacc. Myc. Ven. 128 p. p. et *V. cerviculata* Erb. critt. ital. ser. II. 641, 632

(non Fr.) *Valsa lata* Sacc. Myc. Ven. 128 p. p. (non Pers.) tab. XIV. f. 21–28. *V. Vitis* Hazl. Ban. 1873 t. I. f. 4. — Stromate late effuso ex cortice v. ligno immutato vel sæpius nigrificato formato; peritheciis globulosis, nigris, extus initio albo-furfuraceis, in ostiola sæpius brevia conoidea v. obtusata plus minus profunde 4–5-sulcata productis; ascis clavatis longissime stipitatis, 35–55 ≃ 6–8 p. sporif.; sporidiis distichis allantoideis, utrinque rotundatis, curvulis, luteolis 9–14 ≃ 2–3. — Spermogonia sistit *Cytispora ludibunda* Sacc. Mich. I. 519.

Hab. in ramis corticatis, in cortice duriore truncorum, immo, cortice secedente, in ligno denudato arborum fere omnium in tota Italia bor., nec non in Gallia, Germania et Amer. merid. Cfr. Mich. I. 15, ubi nutrices 38 notavi et formarum characteres ex quibus notabiliores sequentes: 1. *Juglandis regiæ*, quaternariæformis; corticola, acervulis parvis gregariis; ostiolis leviter 3–4-rimosis; ascis p. s. 55–60 ≃ 8; sporidiis 11–15 ≃ $2^1/_2$–3. — 2. *Aceris campestris*; peritheciis ligno immersis v. semimmersis, in series longitudinales parallele stipatis; ostiolis obsolete rimosis; a. p. s. 55–60 ≃ 8; sp. 11–14 ≃ $2^1/_2$–3. — Species maxime ludibunda; perithecia submonosticha, nunc subsparsa ad instar *Cryptosphæriæ*, nunc in ligni superficie denigrata, densissime stipata ut vera *Eutypa*, nunc in acervulos quasi *Eutypellæ* hinc inde aggregata, initio extus albo-furfuracea; stroma modo latum nigrumque, modo tenue et vix percipiendum; ostiola plerumque brevia, rarius vero longiuscula, non tamen exserta, vertice conoideo vel obtusato, modo profunde 4–5-sulcato, modo leviter rimoso, neutiquam levi, ut *V. lata* (Pers.). A *V. referciente* Nke Pyr. germ. 137 differt præcipue stromate in cortice interiore plerumque nigrolimitato, peritheciis extus albo-furfuraceis, monostichis, sed et hæc forte ejusdem speciei formam rariorem sistit. *Valsa leprosa* (P.) Nits. Pyr. 136 et *V. confluens* Nits. ib. 167 verisimiliter a *V. ludibunda* specifice non differunt. *V. leprosa* perfecte congruit cum forma quam in Mycoth. Ven. n. 200 edidi.

16. **Eutypa arundinacea** Sacc. Fungi Ven. Ser. IV. p. 15. — Stro- 633
mate serialiter extenso, oblongo, sublineari, sæpe confluente in cortice atroinquinato et hinc inde parum elevato nidulante, zona nigricante per lignum sæpe excurrente limitato; peritheciis minutis, diam. $^1/_4$–$^1/_3$ mill., sphæroideis v. e mutua pressione subangulosis atris, extus albido-furfuraceis, ostiolis cylindraceis longiusculis, rectis v. raro subvalsiformiter conniventibus, corticem perforantibus

exertisque, apice subrotundatis leviter 3–4-radiatim exaratis; ascis copiosis longissime stipitatis p. s. 50 ≃ 6, stipite 50 micr. lg., pseudoparaphysibus nucleolatis obvallatis, 8sporis; sporidiis distichis cylindraceis, utrinque obtusis 12 ≃ $2^1/_2$–3, curvulis, 2-guttulatis, luteolis.

Hab. in culmis Arundinis Donacis putrescentibus a Vittorio (Treviso) Oct. 1873, sociis spermogoniis (?) globulosis, immersis unilocularibus, atris, spermatia minutissima oblonga, 3 ≃ 1, hyalina sterigmatibus cylindraceis crassiusculis fulta, foventibus. — Stromatibus parallele seriatis facile dignoscitur.

17. **Eutypa alsophila** (Dur. et Mont.) Sacc. *S.* (Valsa?) *alsophila* D. et M., Mont. Syll. Crypt. n. 828. — Concrescens, effusa; perithecciis sparsis aut aggregatis, ligno semmiimmersis, crusta atra subcorticali tectis ostiolis erumpentibus striatis, ascis tenuissimis cylindricis, sporidiis subreniformibus. 634

Hab. in ramis Salsolæ oppositifoliæ, Mostaganem Algeriæ (Durieu).

18. **Eutypa spinosa** (Pers.) Tul. Fung. Carp. II, 59. *Sph. spinosa* Pers. Syn. 34, *Sph. limæformis* Schw., *Valva spinosa* (Pers.) Nits. Pyr. Germ. p. 127, *Diatrype Berengeriana* De Not. Sf. ital. 27, t. 26, Sacc. Myc. Ven. Sp. t. XV, fig. 21–23. — Stromate latissime effuso, in ligno, sæpius in cortice crassiore et sub ejus strato supremo, mox secedente nato, deinde libero, substrato atroinquinato v. demum in superficie expallenti omnino immerso, crasso, aterrimo, primum pilis septatis simplicibus v. ramosis, conidiferis dense obsito; conidiis (*Trichosporium Bèrengerianum* Sacc.) obovatis, basi truncatis, 7 ≃ 5, fuligineis, guttulatis (cylindricis, hyalinis, sec. Nits.) solitarie v. verticillatim acrogenis; perithecciis monostichis, grandiusculis, globosis v. ovatis, densissime stipatis ac mutua pressione plerumque tandem angulatis, in matrice nigricante nidulantibus, ostiolis maximis, crassis, pyramidatis, alte quadrisulcatis, rugosis prominentibus; ascis anguste clavatis, longissime pedicellatis, octosporis, 32–40 ≃ 5–6 p. sporif.; sporidiis in asci lumine utrinque acutissimo subdistichis, cylindrico-navicularibus, curvulis v. subrectis, pallide fuscescentes, 8–10 ≃ 2. 635

Hab. in cortice duriore, rarius in ligno Fagi sylvaticæ in tota fere Europa et Amer. bor. — Cl. Berk. distinguit *E. limæformem* (Schw.) in Quercu et Liquidambar ex Amer. bor. sed specimen in Rav. F. A. n. 92 a typo non differt.

19. **Eutypa anomala** (De Not.) Sacc. *Sphæria spinosa anomala* De Not. 636

Micr. ital. Dec. VII, p. 108, fig. III. — Corticola, stromate nigrescente, sub epidermide effuso, hinc inde verticaliter descendente, nigro; peritheciis acervulatim confertis, stipatisque, globosis v. angulosis, nigris, quandoque substantia albicante tectis; ostiolis erumpentibus subpyramidatis, sulcatis v. teretibus, discretis v. coalitis; ascis clavatis, stipitatis 45 ≃ 8–9 (p. sporif.), octosporis, paraphysibus genuinis nullis; sporidiis allantoideis hyalino-luteolis, curvulis, 8–10 ≃ 2–2,4.

Hab. in cortice ramorum Fici Caricæ, Genuæ (Italia). — *Eutypæ lividibundæ* Sacc. affinis.

B) Ostiola non sulcata.

20. **Eutypa lata** (Pers.) Tul. Sel. Fung. Carp. p. 56, *Sphæria lata* Pers., ? *Sph. papillata* Hoffm., *Valsa lata* (Pers.) Nits. Pyr. Germ. p. 141. — Stromate longe lateque effuso, contiguo, ligno vel cortici crassiori innato, superficie e peritheciis irregulariter emergentibus inæquabili, e fusco vel cinereo demum nigricante; peritheciis monostichis, ligno vel cortici haud nigrificato immersis, plus minus protuberantibus, sphæroideis, latit. circiter 0,5 mill., collis brevissimis vel fere nullis ostiolisque obtuse conoideis vel subhemisphæricis, integris, rarissime obscure rimosis; asci cylindraceo-clavatis, longissime pedicellatis, 48 ≃ 4–5 p. sporif.; sporidiis subdistichis, elongatis, curvulis v. subrectis, pallide fuscescentibus, 8–12 ≃ 1,5–2. — Spermogonia hemisphærica vel subconoidea, simplicia, stromati juniori immersa; spermatiis exiliter cylindraceis, varie curvatis, subsessilibus, hyalinis, tandem in cirrhos pallide roseos propulsis, 18–22 ≃ 1. 637

Hab. in ligno et cortice Quercus, Fagi, Carpini, Pyri, Pistaciæ, Cratægi, Fici, Aceris, Pruni, Rhamni, Ulmi, Salicis, Corni, Coryli, Ulicis, in tota fere Europa et Amer. bor. — Var. *abscondita* Dur. et Mont. Alg. p. 461: peritheciis immersis epidermide atrata tectis crassiusculis, ostiolis punctiformi-umbilicatis, conicis aut radiatis. In caule Ferulæ, Ricini, Dauci in Algeria. — Var. *Arundinis* Dur. et Mont. Alg. p. 461: peritheciis minoribus ovatis basi subapplanatis culmo immutato aut denigrato colliculoso immersis. In culmis Arundinis Donacis et A. mauritanicæ in Algeria.

21. **Eutypa lejoplaca** (Fr.) Cooke Handb. n. 2400, *Sph. lejoplaca* Fr. S. M. II, 370, *V. lejoplaca* (Fr.) Nits. Pyr. Germ. p. 151. — Stromate latissime effuso, raro breviore, maculæformi v. interrupto, 638

tenuissimo, ligno plerumque omnino non, multo rarius parum elevato immerso, lævi, ex dilute fusco tandem sordide nigricante; perithciis monostichis, globosis, minimis, dense stipatis, sub ligni strato superiore, haud nigrefacto, supremo stromate fucato tecto, in matricis substantia mox nigricante nidulantibus, alteque immersis, in collum tenuissimum, cylindricum, longiusculum abrupte attenuatis ostioloque minutissimo, punctiformi, nec incrassato, medio perforato, vix prominulo instructis; ascis anguste clavatis, longissime pedicellatis, octosporis, 36–40 ≃ 5–6 p. sporif.; sporidiis in asci lumine utrinque attenuato subdistichis, cylindricis, curvulis, dilute ex viridulo fuscescentibus, plerumque 8–12- rarius 6–16 ≃ $1^1/_2$–3 (plerumque 2).

22. **Eutypa luteobasis** (Ellis) Sacc. *Sphæria luteobasis* Ellis North Amer. n. 99. Bull. Torr. Cl. 1877, p. 134. — Peritheciis ligno superficie infuscato immersis, globosis, dense gregariis, stromate flocculoso luteo exceptis, ostiolis emergentibus, rotundis, levibus dein umbilicatis; ascis clavatis longe stipitatis p. s. 50 ≃ 6, octosporis; sporidiis distichis allantoideis, curvis, 10 ≃ 2, olivaceis. 639

Hab. in ligno pineo (et quercino?) putri, New Jersey Americæ borealis.

23. **Eutypa scabrosa** (Bull.) Fuck. Symb. mycol. p. 215. *Sph. scabrosa* Fr. *Hypoxylon scabrosum* Bull. *Valsa scabrosa* (Bull.) Nits. Pyr. Germ. p. 138. — Stromate perithecigero plerumque tubercula formante suborbicularia v. ovalia, convexa, confluentia v. subdiscreta, rarius late effuso, subæquali rimis diffracto v. undulato, in ligno, rarissime in cortice crassiore superficiali v. sub peridermio nato moxque erumpente, extus intusque nigricanti, ostiolis numerosissimis, exiguis scabroso; peritheciis ordine valde inæquali, immo polystichis in stromate proprio semper nidulantibus densissimeque stipatis, globosis, exiguis, collo pro situ brevissimo v. longiore ostioloque hemisphærico v. subconico, integro, minutissimo instructis; ascis cylindrico-clavatis, longissime pedicellatis, octosporis, 40–48 ≃ 4–5 p. sporif.; sporidiis in asci lumine utrinque maxime attenuato subdistichis, cylindricis, nonnihil curvatis, dilute fuscescentibus 6–12 (plerumque 8–10) ≃ $1^1/_2$–2. 640

Hab. in ligno Fagi, Quercus, Coryli, Mori, Aceris, in tota fere Europa et Amer. boreali.

24. **Eutypa lævata** (Nits.) Sacc. *V. lævata* Nits. Pyr. Germ. p. 144. *Sph. eutypa* β. *platycrinia* Fr. in herb. Kunze. — Stromate latissime effuso, ambiente, ligno, rarissime cortici innato eaque in 641

superficie colore ex brunneo mox aterrimo tingente, tenui, tuberculoso, ceterum omnino levi, nitidulo; peritheciis monostichis, globosis, minutis, rarius dense stipatis, plerumque plus minus laxe sparsis v. gregatim sociatis, substrato haud fucato immersis, singulis parte superiore, plus minus exstante, tuberculo ligneo, e basi orbiculari v. elliptica hemisphærico v. depresse conico inclusis, in collum brevissimum attenuatis, ostiolo nec incrassato, minutissimo, obtuso, integro, nitido, perforato, in tuberculi vertice prominulo instructis; ascis anguste clavatis, longissime pedicellatis, octosporis, minimis, 23–28 ≃ 5 p. sporif.; sporidiis in asci lumine utrinque angustato subdistichis v. conglobatis, cylindricis, curvulis v. subrectis, pallide fuscescentibus, 7–8 ≃ $1^1/_2$.

Hab. in ramis et ligno Salicum et Corni sanguineæ in Germania, et Italia.

25. **Eutypa prorumpens** (Wallr.) Sacc. *V. prorumpens* (Wallr.) Nits. 642
Pyr. Germ. p. 143, *Sph. prorumpens* Wallr., Fr. — Stromate effuso, maculæformi, in ramis corticatis corticis parenchymati haud fucato immerso sed ligno tandem in superficie nigricante adnato lineaque atra, flexuosa circumscripto; peritheciis cortici insculptis, monostiche atque irregulariter sparsis, in greges minutos, sæpius in series elongatas, irregulares, interruptas densius stipatis et erumpentibus, peridermio immaculato, nunc rimose fisso, nunc peritheciis singulis, globosis v. depressis, minutis, protuberantibus arctissime adhærente; peritheciorum collis brevissimis v. nullis, ostiolis pro ratione majusculis, hemisphæricis v. depressis, obtusissimis, rugulosis; ascis anguste clavatis, longissime pedicellatis, octosporis, 38 ≃ 5 p. sporif.; sporidiis in asci lumine utrimque attenuato subdistichis, cylindricis, curvulis v. subrectis, subhyalinis, 8–9 ≃ $1^1/_2$–2.

Hab. in ramis emortuis Viburni Opuli in Thuringia, raro.

26. **Eutypa flavo-virescens** (Hoffm.) Tul. Sel. Fung. Carp. II, p. 57, 643
t. VII, f. 1–7, *Sphæria flavo-virescens* Hoffm., *Valsa flavo-virens* Nits. Pyr. p. 139. — Stromate nunc plus minus effuso, superficiali, crustiformi, æquali vel e tuberculis difformibus composito, rarius innato, nunc obsoleto, scabroso, atro, intus primo flavo, mox flavo-virente, tandem sæpe olivaceo-atro; peritheciis plerumque monostichis, in stromate nidulantibus, haud stipatis, sphæroideis, minutis, collis brevissimis ostiolisque prominulis, lævibus vel rugosis, obtuse conoideis; ascis cylindraceo-clavatis, longissime pedicellatis, 30–50 ≃ 4–7 p. sporif.; sporidiis distichis, elongatis, curvulis, dilute fuscescentibus, 6–10 ≃ 2–3. — Spermogonia

stromati immersa, depresse conoidea, parietibus carnosis, stromati concoloribus; spermatiis cylindricis, curvatis, hyalinis, sessilibus adglutinatis, denique cirrhose protusis.

Hab. in corticibus et ligno Fagi, Quercus, Carpini, Salicis, Aceris, Pruni, Rhamni, Ribis, Populi, Rosæ, Betulæ, etc. in tota Europa. — Plurimæ formæ adsunt inter quas var. *multiceps* Sow. Engl. Fung. III, t. 394, f. 8, stromate tuberculis discretis composito a typo recedens, maxime notanda est. Colore interno stromatis flavovirente facillime dignota species.

27. **Eutypa enteroxantha** (Berk.) Sacc. *Sphæria enteroxantha* Berk. 644
Dec. of fung. n. 110. — Inæqualis suborbicularis, rugosa, nigra, intus pulverulenta, aurea; peritheciis oblongis; ostiolis prominulis punctiformibus; ascis anguste clavatis; sporidiis minimis allantoideis.

Hab. in ramis emortuis, Guiana britannica (Schomburgk). — *E. flavo-virenti*, cui sporidiis quoque analoga, stromate aureo mox dignoscitur.

28. **Eutypa macrospora** (Nits.) Sacc. *V. macrospora* Nits. Pyr. Germ. 645
p. 145. — Stromate effuso, in ramis decorticatis, rarius in cortice, maculas efficiente fuscas v. sordide nigricantes, irregulares, interruptas v. ambientes, læves, opacas; peritheciis minutis, globosis v. depressis, matricis substantiæ immaculatæ leviter immersis, plerumque plus minus protuberantibus, in collum brevissimum subito attenuatis ostioloque conico, acutiusculo v. obtuso, integerrimo, nitidulo instructis, nunc sine ordine sparsis, nunc contra in greges minutos densius stipatis, lignique tuberculo communi tectis; ascis clavatis, pedicellatis, octosporis, 80–100 ≃ 10 p. sporif.; sporidiis distichis, cilindricia v. obtuse fusiformibus, curvulis v. subrectis, fuscis, 18–21 ≃ 4–5. — Spermogonia cytisporoidea, sed unilocularia: spermatiis allantoideis 7–10 ≃ 2, breve stipitatis.

Hab. in ramis crassioribus Sarothamni vulgaris prope Münster Germaniæ.

29. **Eutypa mauroides** (Nits.) Sacc. *Valsa mauroides* Nits. Pyr. Germ. 646
p. 151. — Stromate longe lateque effuso, ramos decorticatos sæpe ambiente, ligno, haud elevato omnino immerso ejusque superficiem æqualem, lævem, immo fere nitidulam, ostiolis punctulatam colore, tandem aterrimo tingente; peritheciis monostichis, ligno haud fucato satis alte immersis dense stipatis, plerumque valde depressis, minutis, in collum tenue, longiusculum, cylindricum subito attenuatis ostiolisque perexiguis, haud incrassatis, subglobosis vel hemisphæricis, lævibus, nitidulis, omnino integris, poro angustissimo

pertusis instructis; ascis anguste clavatis, longissime pedicellatis, octosporis, 30–34 ≃ 5 p. sporif.; sporidiis in asci lumine utrinque attenuato subdistichis, cylindricis, parum curvatis v. subrectis, subhyalinis, 8–10 ≃ 2.

Hab. in ligno et ramis decorticatis Salicis, Coburg, Münster (Germania).

30. **Eutypa nitida** (Nits.) Sacc. *Valsa nitida* Nits. Pyr. Germ. p. 147. 647
— Stromate effuso, in ramis corticatis maculas elongatas, oblongas v. ovales ac vix elevatas efficiente, matrici haud inquinatæ innato sed strato nigricante et ad lignum suppositum descendente v. in id penetrante circumscripto, primo peridermio tecto, deinde nudato ac pilis conidiferis breviusculis, simplicibus, septatis, fuscis vestitum, denique glabro, superficie ex fusco mox aterrimo; peritheciis corticis interioris parenchymati, specie immutato immersis, ordine monosticho, subæquali denseque stipatis, minutis, globosis, varie angulosis v. depressis, parietibus crassis, collo brevi, tenui ostioloque exiguo, hemisphærico, papillæformi, integerrimo, poro anguste tandem pertuso instructis; ascis cylindrico-clavatis, longissime pedicellatis, octosporis, 40 ≃ 5 p. sporif.; sporidiis cylindricis, curvulis, hyalinis, in asci lumine utrinque attenuato conglobatis, 6–7 ≃ 1.

Hab. in ramis Salicis capreæ, prope Münster, Germ., raro.

31. **Eutypa Fraxini** (Nits.) Sacc. *V. Fraxini* Nits. Pyr. Germ. p. 145, 648
Sphæria Fraxini Curr.? — Stromate brevi, maculæformi, raro latius effuso ramosque ambiente, rarissime ligno nigrescenti, elevato, plerumque corticis interioris parenchymati, fungi stromate mox nigrificato, tumescenti immerso lignoque atroinquinato adnato, peridermio arctissime adhærente, nunc incolorato nunc contra cinerascente v. tandem nigricante tecto, rarius, peridermio secesso, denique libero, atro; peritheciis monostichis, majusculis, globosis v. depressis, plus minus alte immersis ac plerumque densissime stipatis, rarius sparsis, erectis v. in stromatum minorum ambitu, collis nonnihil convergentibus, fere symmetrica, collo brevi v. pro situ longiori, crasso, ostiolo incrassato, majusculo, hæmisphærico v. subconico, ruguloso, integro, prominulo instructis; ascis anguste clavatis, in pedicellum prælongum attenuatis, octosporis, 32–40 ≃ 5–6 p. sporif.; sporidiis in asci lumine, utrinque attenuato subdistichis, cylindricis, nonnihil incurvis v. subrectis, fuscescentibus, 5–10, rarius, 12 ≃ 2–3.

Hab. in ramis emortuis tenuioribus Fraxini excelsioris,

Münster, Cappenberg, Germania. — f. *Arbuti:* sporidiis allantoideis, 9–11 ≃ $1^3/_4$–2, dilute olivaceis. — In ramis corticatis Arbuti Unedonis, in Gallia.

32. **Eutypa milliaria** (Fr.) Sacc. *Valsa milliaria* (Fr.) Nits. Pyr. Germ. 649
p. 149, *Sphæria milliaria* Fr. — Stromate nunc late effuso, nunc brevi, maculæformi ac plerumque longitudinaliter expanso sæpeque confluente, ligno, semper elevato, primum immutato v. in superficie æquali, cinereo, deinde extus intusque plus minus atroinquinato immerso, ostiolis nigro-punctulato, ceterum lævi opaco; peritheciis substrato, plus minus fucato omnino immersis, monostichis, dense stipatis, globosis, in collum breve attenuatis ostiolisque subglobosis integris v. spurie ac radiatim sulcatis instructis; ascis cylindrico-clavatis, longissime pedicellatis, octosporis, 27 ≃ 5 p. sporif.; sporidiis in asci lumine utrinque angustato subdistichis v. in asci parte inferiore monostichis, cylindricis, parum curvatis, subincoloratis, 7–9 ≃ $1^1/_2$–2. — Spermogonia unilocularia: spermatiis filiformibus curvis, 24 ≃ 1.

Hab. in ligno duriore Quercus, Fagi, Staphyleæ in Suecia, Italia, Germania et America boreali.

33. **Eutypa aneirina** (Somm.) Sacc. Mich. I, 18, 574, *Diatrype aneirina* 650
Fr. De Not. Sf. ital. p. 29, t. 29, *Sph. aneirina* Somm. Lapp. 208. — Effusa, tecta, peritheciis confertis in stromate flavescente nidulantibus (peridermio denique denigrato tectis), ostiolis sparsis convexis, parum excedentibus, lævibus; ascis clavatis longe stipitatis, p. sporif. 35–40 ≃ 6–7, octosporis; sporidiis allantoideis, 9–10 ≃ 1,6–2, luteolis.

Hab. in cortice Populi tremulæ et Populi nigræ in Lapponia et Italia boreali. — Tumores sistit ultra pollicem latos, ad 4 poll. longos determinatos inter epidermidem et corticem nidulantes. — A *Cryptosphæria millepunctata* præsertim stromate evidentiori dignoscitur.

34. **Eutypa leucostroma** (Mont.) Sacc. *Valsa leucostroma* Mont. Syll. 651
Crypt. n. 759. — Conica aut placentæformis, atra, impolita; peritheciis paucis nigris in stromate albo nidulantibus conceptaculoque cinctis, ostiolis vix conspicuis; ascis subclavatis 45 μ. long.; sporidiis 9–10 μ. long. brevibus linearibus.

Hab. in ramis Smilacis mauritanicæ, Alger (Durieu), Smilacis Alpini in horto Patavino. — «Acervuli corticales, prominuli, epidermide a disco pertusa cincti, quandoque confluentes macula stromatica nigra inter acervulos varie diffusa; ostiola

rotundata lævia; asci clavati, longe stipitati, p. sporif. 35–40 ≃ 7–8, 8spori; sporidia disticha, 9–11 ≃ 2–2¾, botuliformia, luteola, 2-guttulata [Michelia]».

35. **Eutypa Rhodi** (Nits.) Fuck. *V. Rhodi* Nits. Pyr. Germ. p. 148. 652
— Stromate effuso, maculæformi, determinato lineaque atra sæpe circumscripto, ligno nudato, multo sæpius cortici interiori immerso, matricem plerumque nonnihil elevante atque nigrificante, peridermio arctissime adhærente, ostiolis tantum pertuso, nigropunctato, translucido, incolorato tecto; peritheciis minimis, globosis v. depressis, corticis parenchymati tandem plus minus atroinquinato monostiche denseque immersis, haud raro ordine lineari dispositis, in collum breve v. longiusculum, tenue subito attenuato ostioloque minutissimo, punctiformi, hemisphærico, integro, lævi, prominulo, poro, minimo denique pertuso instructis; ascis anguste clavati, longissime pedicellati, octospori, 40–44 ≃ 5–6 p. sporif.; sporidiis in asci lumine et apicem versus attenuato subdistichis, cylindrincis, curvulis v. subrectis, dilute fuscescentibus, 10–12 ≃ 2.

Hab. in ramulis Rosæ caninæ et tomentosæ in Britannia, Gallia. — Var. *Corni sanguineæ*, ascis p. sporif. 40–45 ≃ 5–6; sporidiis 8 ≃ 1½, hyalinis. — In ramulis Corni, Saintes (Gallia).

36. **Eutypa ambigua** J. Kunze Fungi sel. exsicc. n. 152 (sine diagnosi). 653
— Stromate late effuso ramulosque totos subinde ambiente, corticem adhærentem infuscante; peritheciis dense gregariis v. hinc inde aggregatis, globulosis, cortice immersis, prominulis, ostiolis tantum perforantibus, globulosis, pertusis, integris, parum extantibus; ascis longe stipitatis, clavatis, aparaphysatis, apice obtusis, p. sporif. 52 ≃ 5–6, octosporis; spordiis distichis allantoideis, curvis, e hyalino chlorinis, 7–9 ≃ 1,5–2.

Hab. in truncis emortuis Spirææ ulmifoliæ in hortis prope Eisleben (Germania). — Affinis *E. Rhodi*.

37. **Eutypa velutina** (Wallr.) Sacc. Fungi Veneti Ser. IV, p. 16, Fungi 654
ital. t. 472, *Sph. velutina* Wallr. Fl. crypt. n. 4066. — Stromate late extenso plano; peritheciis globosis nigris sparsim confertis ligno insculptis latitantibus, in colla brevia tenuatis ostiolo conico-rotundato levi nitido vix emergente; ascis fusoideis longe stipitatis p. sporif. 35 ≃ 4,5; sporidiis allantoideis, dilute olivaceis, 7–9 ≃ 2, leniter curvis. — Status conidicus *Trichosporium velutinum* sistens et matricis superficiem fusco velutinam reddens; conidiis obovoideis fuligineis 6 ≃ 4,5–5.

Hab. in trunco decorticato Aceris campestris in Ital. bor.

et Germania. — Var. *quercina* Michel. II, 374; ascis minoribus, nempe 22–26 ≃ 3½–4 (p. sporif.); sporidiis etiam minoribus, 5–6 ≃ 1, subhyalinis. — In ligno quercino, Newfield, (Ellis).

38. **Eutypa dimorpha** (Berk. et Curt.) Sacc. *Diatrype dimorpha* Berk. et Curt. Exot. fungi Schwein. p. 287. — Effusa, nigra, ligno immersa; peritheciis majoribus globosis, ostiolo elongato spiniformi; sporidiis minimis, oblongis, curvis, 4–5 μ. long. 655

Hab. in ramis decorticatis, Surinam. — Tumores format ligno plus minusve immersos, constantes e pustulis, in quibus 1–2 globosa perithecia rostellata nidulantur. — *Eutypæ latæ* affinis, a qua differt peritheciis majoribus et sporidiis minoribus.

39. **Eutypa comosa** Speg. Fungi Arg. Pug. IV. n. 21. — Stromate late ambiente per lignum corticatum v. decorticatum denigratum profunde et tortuose excurrente, linea nigra limitato; peritheciis dense gregariis, immersis, globosis 350–400 μ. diam., atris, membranaceo-carbonaceis, nucleo olivaceo gelatinoso-fluente farctis, in ostiolum exertum, filiforme, sæpius prælongum 5–15 ≃ 0,8–0,1 mill. atrum, carbonaceum productis; ascis clavato-obovatis 25–30 ≃ 6–9 mox a pedicello longo ac fluxili secedentibus, aparaphysatis (?), octosporis; sporidiis inordinate 2–3-stichis, elliptico-navicularibus, leniter curvulis 5–7 ≃ ?–2,5, utrinque obtusiusculis ac 1-guttulatis, dilute chlorino-fumosis. 656

Hab. ad caudices putrescentes vetustos (nec non ramos) Celtidis Talæ prope Buenos-Aires, et in sylvis australioribus (Amer. australis) per annos 1880–81. — Species pulcherrima mox distinguenda, matricem horride hirtam, v. longe atro-comatam efficiens.

40. **Eutypa heteracantha** Sacc. Mich. I, p. 504, *V. heteracantha* Sacc. Mycol. Ven. Spec. p. 129, tab. XIV, f. 35–42. — Stromate corticali, subepidermico tandem liberato, ramos late ambiente, nigerrimo, primitus hyphis, fuscis, ramoso-intricatis, articulatis conidiophoris velutino, tandem ligni superficiem atroinquinante; conidiis obovoideis 6 ≃ 5–6, 1-guttulatis, fuligineis; peritheciis cortici immersis lignoque adnatis, nunc in acervulos valsiformes per (4–6) aggregatis, nunc subsparsis, sphæricis, majusculis, atris, intus nitidis, ¾–1 mill. diam., ostiolis crasse cylindraceis v. subconicis, perfecte lævibus, epidermidem fasciculatim erumpentibus alteque exertis, superne divergentibus, apice rotundatis et tandem pertusis, circa basim constanter hypharum fasciculis, rigidis spiniformibus, elongatis, patulisque cinctis, tandem subdenudatis; ascis copiosissimis crassiuscule clavatis, longissime stipitatis, parte sporifera 18– 657

25 ≃ 4½, stipite 15-20 long., 8sporis; sporidiis subdistichis v. inordinatis, cylindraceis, curvulis, utrinque rotundatis, 5-6 ≃ ¾-1¼, dilute luteolis, 2-guttulatis. — Status spermogonicus: spermogoniis subunilocularibus, intus pallidis, sub epidermide elevata nidulantibus, globulosis, sursum fasciculos hypharum (ut perithecia ascophora) eminentibus; spermatiis filiformibus, 20 ≃ 1, arcuatis, hyalinis sterigmatibus brevibus fasciculatis fultis. — St. macroconidicus (fasciculi prædicti hypharum) sistit *Graphium fasciculatum* Sacc.

Hab. in ramis corticatis arborum fruticumque variorum in Italia bor., Germania, Gallia, Lusitania, Amer. merid. frequens, vere. Hucusque lecta in Salice alba, Sambuco nigra, Moro alba, Ailantho, Hibisco Syriaco, Hedera, Smilace, Rhoe Salice, Vite, Pruno, Celtide Tala, Melia, Bauhinia, Broussonetia papyrifera, Robinia Pseudacacia, Carpino Betulo, Weigelia, Coronilla Emero, Vitalba, Evonymo, Tilia, Lauro, Alno, Acere. — Species distinctissima, sed n. 41 et 43 forte affinis, quæ, dum provectior fit, dejecto rami cortice, ostiolis elongatis et hyphis delapsis, valde, habitu, Diaporthem spiculosam v. fasciculatam æmulatur. Dixi heteracantham quia perithecia spinas dimorphas proferre videntur, nempe crassiores seu ostiola, tenuiores seu fasciculos hypharum. — *Valsa atomospora* Ellis North Amer. Fungi n. 690 (in *Corno*) vix differre videtur.

41. **Eutypa bellula** (Desm.) Sacc. *Sphæria bellula* Desm. Not. 1840. 658
p. 186. — Ligno immersa, sparsa, raro confluens; peritheciis nigris, glabris, magnis, globoso-depressis, in parte lignosa culmi nidulantibus, ostiolo longissimo rugoso obtuso; ascis minimis, hyalinis, pyriformi-subclavatis; sporidiis 5-6 oblongis, 2-guttulatis, 5-6 μ. long.

Hab. in Gallia, Caen, in culmis Arundinis Donacis. — « *Eut. heteracanthæ* affinis ».

42. **Eutypa sepulta** (B. et C.) Sacc. *Sphæria sepulta* B. et C. North 659
Amer. Fungi n. 954. — Peritheciis sepultis ostiolo emergente; sporidiis allantoideis minutis.

Hab. in ramis Smilacis, Carolina infer., Amer. bor. — Perithecia immersa, fere ut in *Diaporthe Berkeleyi.*

43. **Eutypa sycina** (Mont.) Sacc. *V. sycina* Mont. Syll. Crypt. n. 769 660
et Fl. Alg., I, p. 474, sub *Sphæria.* — Peritheciis cortici interiori innatis amplis sparsis aut aggregatis sphæricis, evacuatis intus atro-

nitentibus, crusta atra furfurosa inæquabili tectis, ostiolis erumpentibus subjunctis; ascis diffluentibus fusiformibus 40 ≃ 5; sporidiis 5 μ. long. reniformibus tenuissimis.

Hab. in cortice Fici Caricæ, Alger (Durieu). — *E. heteracanthæ* affinis videtur.

44. **Eutypa Julii** H. Fab. Sphér. Vaucl. p. 71. — Stromate corticali, subepidermico, tandem liberato, ramos late ambiente, atro; peritheciis in matrice nigricante nidulantibus, dense stipatis, 1/3 mill. latis, globosis, atris, subtiliter rugulosis, in rostrum cylindricum, strictum, sinuosum, deflexum, sexies perithecii altitudinem æquans abrupte attenuatis, rostris fasciculatim erumpentibus secundisque; ascis fusiformibus 8-sporis, 45-50 ≃ 5; sporidiis distichis, cylindraceis, utrinque obtusis, rectis vel curvulis, continuis, hyalinis 8-10 ≃ 2. 661

Hab. ad basim putrescentem Punicæ Granati, semel autumno obvia, Vaucluse (Gallia).

C) Species quoad ostiola incertæ.

45. **Eutypa microcarpa** (Fr. et M.) Sacc. *Valsa* (Sphæria) *microcarpa* Fr. et Mont. Ann. Sc. nat. 1834, I. 299. — Stromate late effuso tomentoso fusco-atro-obtecta; peritheciis minutissimis globosis; ostiolis disco nigro prominulis; ascis ..... sporidiis fusoideis curvis pellucidis, globòso-guttulatis. 662

Hab. in ramis ignotis Lyon, Gallia. Perithecia stromate corticali profunde immersa; ostiola supra discum nigrum, epidermide rupta cinctum vix prominula; stromatis substantia sæpe pallens extus nigra velutina «(conidiophora?)». An *E. velutinæ* analoga?

46. **Eutypa penes** (B. et Br.) Sacc. *Sph.* (Obvallatæ) *penes* B. et Br. Fungi of Ceyl. n. 1112. — Cortici immersa; ostiolis minimis congestis, tandem emergentibus; ascis clavatis; sporidiis minimis allantoideis. 663

Hab. in cortice, superficie nigro-maculato, Ceylon.

47. **Eutypa phaselina** (Mont.) Sacc. *Sph. phaselina* Mont. Syll. Crypt. n. 855 et Guy., mss. n. 565, t. 6, f. 2. — Seriata, erumpens, lineari-lanceolata, elevata, nigra; stromate pallido; peritheciis plurisepialibus connatis, oblongis, ostiolis crassis prominulis scutelliformibus atris; ascis octosporis, clavatis; sporidiis minutissimis phaseoliformibus hyalinis, 7,5 ≃ 2,5. 664

Hab. in Cayenna (Leprieur).

48. **Eutypa micropuncta** Cooke in Rav. Fung. Amer. n. 187 et in Grev. 665

VI. p. 144. — Effusa, atra, undulata; peritheciis minimis; ostiolis punctiformibus, dense stipatis, vix elevatis, nec sulcatis, convexulis; sporidiis allantoideis, hyalinis, minutis.

Hab. in ramis quercinis in Florida, Amer. bor.

49. **Eutypa micromeria** (Mont.) Sacc. *Diatr. micromeria* Mont. Syll. Crypt. n. 752. — Immersa, oblonga, prorumpens, longitrorsum confluens, extus intusque atra; peritheciis minutis globosis, ostiolis teretibus gracilibus longis; ascis 15–20 μ. long. sporidiis 4 ⩱ 1, leviter curvis, exilissimis. 666

Hab. in cortice arborum, Cayenna (Leprieur).

50. **Eutypa rhypodes** (B. et C.) Sacc. *Hypoxylon rhypodes* B. et C. North Amer. Fungi n. 849. — Linearis; peritheciis congestis minutis albo-pulverulentibus; sporidiis allantoideis. 667

Hab. in ligno quercino, Pensylvania. — Perithecia secundum ligni fibras disposita, minuta, connata, albo-furfuracea.

51. **Eutypa Ulicis** (Fr.) Sacc, *Sphæria* (Versatilis) *Ulicis* Fr. Linnæa 1830, p. 544. *Diatrype Ulicis* Berk., Cooke Handb. n. 2453. — Verruciformis, sublibera, extus intusque carbonacea, atra; peritheciis membranaceis, amplis, ostiolis tuberculosis; sporidiis (ex Cooke ms.) allantoideis. 668

Hab. ad ramos Ulicis in Britannia et in Europa australi (Dufour). — Stroma a cortice formatum, subcarbonaceum, fragile; verrucæ erumpentes inæquales, subconfluentes. — *Eutypæ scabrosæ* affinis.

52. **Eutypa viticola** (Schw.) Sacc. *S. viticola* Schw. Syn. Car. n. 64. Mont. in Fl. Alg. p. 463. *V. Vitis* Schw. sec. Cooke. Valsei U. S. p. 113. — Tecta, emersa, in series parallelas crescens, fusco-nigra, stromate brunneo, peritheciis paucis globosis, ostiolis latentibus; crassis rugulosis; ascis tenuibus cylindrico-clavatis, octosporis; sporidiis allantoideis, curvulis, biseriatis, 12–14 μ. long. 669

Hab. in sarmentis Vitis rotundifoliæ et viniferæ in Amer. bor. (Schw.), Gailia et Algeria (Mont.). Series sparsæ, cum epidermide assurgente prominentes, non vero erumpentes; perithecia magna, globosa, crassa, rariora, 1–3 in singula verruca, stromate brunneo splendente cincta. — Ob stroma brunneum splendens ab *E. ludibunda* mea differre videtur. *Diatrype viticola* (Schw.) Berk. North Am. Fungi n. 854, ob sporidia didyma 15 μ. longa a *Valsaria insitiva* forte non differt.

53. **Eutypa Crouani** Sacc. *Eutypa viticola* Crouan Finist. p. 35 nec Schw. — Peritheciis 2–3 in series digestis, sphæricis, nigris, ostiolo 670

cylindrico, elongato, apice obtuso, transverse striato; ascis clavatis, minutissimis, octosporis; sporidiis cylindraceis, parum curvis.

Hab. in sarmentis emortuis Vitis viniferæ, Finistère (Gallia). 671

54. **Eutypa urticaria** (Mont.) Sacc. *S. urticaria* Mont. Syll. Crypt. n. 840. — Pustulæformis, epidermide adnata demum nigrata obtecta; peritheciis subsphæricis atris; stromate concolori in series parallelas dispositis, intus albis, ostiolis minutis prominulis; ascis clavatis 40 μ. long.; sporidiis octonis, lineari-oblongis, curvulis, hyalinis, 10 ≃ 2.

Hab. in petiolis Palmarum, Cayenna (Leprieur).

ENDOXYLA Fuck. Symb. Myc. App. I. p. 321 (1871), *Eutypopsis* Karst. Symb myc. Fenn. (1877). (Etym. *endon*, intus, *xylon* lignum, quia perithecia ligno infossa). — Stroma ligneum, sed vix manifestum; perithecia in greges plerumque seriales v. subsparsa, ligno tota immersa, ostiolis non sulcatis, sæpe majusculis; asci stipitati, octospori, (spurie?) paraphysati; sporidia allantoidea, dilute fusca. — Spermogonia, sec. Fuck., *Phomæ* species sistentia.

1. **Endoxyla parallela** (Fr.) Sacc. *Sph. parallela* Fr. S. M. II. 373. 672 Curr. Linn. Trans. XXII, t. 47, fig. 100. *Valsa parallela* (Fr.) Nits. Pyr. Germ. p. 154. *Eutypa* (Eutypopsis) *parallela* Karst. mycon fenn. II, p. 130. — Stromate ligno innato, spurio; peritheciis substrato omnino non fucato v. in superficie cinerascenti immersis majusculis, globosis, in cæspites exiguos, seriatim dispositos, ellipticos v. suborbiculares, hinc inde confluentes seriesque breves, parallelas, interruptas formantes dense stipatis, in collum breve ac tenue subito attenuatis; ostiolis exiguis, incrassatulis, subglobosis, atris, integris, lævibus in cæspitulum superficiale densissime confertis poroque tandem pertusis; ascis anguste clavatis, longe pedicellatis, octosporis, 60 ≃ 6–7 p. sporif.; sporidiis distichis v. in asci parte inferiore monostichis, cylindricis, curvulis v. subrectis, fuscescentibus 10–15 ≃ 3–4.

Hab. in ligno decorticato putrido Pini in Suecia, Fennia, Germania, Scotia. — Sporidia non septata, ut in Grev. I. 174, nec talia pingit l. c. Curr. ex Scler. Suec.

2. **Endoxyla operculata** (Alb. et Schw.) *Sphæria operculata* Alb. et 673 Schw. Consp. Nisk. p. 40, Curr. Trans. Linn. XXII, t. 58, fig. 75. *Valsa operculata* (Alb. et Schw.) Nits. Pyr. Germ. p. 173. — Stromate substrato omnino innato, spurio; peritheciis ligno, superficie dealbato, ceterum intus extusque non mutato immersis, magnis,

globosis v. ovatis, irregulariter sparsis, nunc singularibus, discretis, nunc contra plus minus confertis, serie simplici v. rarius duplici ligni rimas occupantibus v. sine ordine gregatim stipatis in collum crassum, breviusculum sensim attenuatis; ostiolis grandiusculis, prominentibus, primitus rotundatis, dein medio depressis poro angusto perforatis, postremo excavatis, subpezizoideis fuscis; ascis anguste clavatis, subsessilibus, octosporis, membrana tenui textis, 60 ≃ 6–7; sporidiis distichis, cylindricis, nonnihil curvatis v. subrectis, saturate fuscescentibus, 12–14 ≃ 3.

Hab. in ligno Abetis in Lusatia et Suecia, rarius.

3. **Endoxyla macrostoma** Fuck. Symb. myc. App. I. 322. — Spermogoniis ut generis, in series lineares, longas dispositis; spermatiis circ. 4 ≃ 1. — Peritheciis ascigeris in greges plerumque biseriales, raro uniseriales et sparsas dispositis, majusculis in collum, perithecium subæquans attenuatis; ostiolis prominulis majusculis, 1/4 mill. lat., sphærulæformibus, globosis seu late ventricoso-conicis, vertice parum umbonatis, papillatis, numquam cupulæformibus, atris, lignum inquinantibus, sed quandoque mycelio (stromate?) byssino, albo vel fusco circumdatis; ascis 58 ≃ 6–7 μ. sporif.; stipite 40–50 μ. longo; sporidiis 10–12 ≃ 3; spermatiis 4 ≃ 1. 674

Hab. in ramis putrescentibus et humi dejectis Quercus, rarius, Bachweg Rhenogovia. — Ab *E. parallela* et *operculata* forma ostiolorum præcipue differt.

CRYPTOSPHÆRIA Grev. Sc. Crypt. t. 201 pro min. parte. De Not. Schema sf. p. 231 p. p. Fuck. Symb. myc. 211 (Etym. *cryptos* abditus, et *sphæria*, quia perithecia peridermio tecta). — Stroma corticale, sed vix manifestum. Perithecia æqualiter et densiuscule gregaria cortici immutato immerse, numquam ligno adnata. Asci stipitati, octospori, aparaphysati. — Spermogonia cytisporoidea.

1. **Cryptosphæria millepunctata** Grev, Crypt. Scot. t. 201, De Not. Sfer. ital. p. 40, t. 47, nec Auct. plur. *Sph. Corticis* Curr. *Valsa eunomia* (Fr.) Nits. Pyr. Germ. p. 160. *Sph. eunomia* Fr. S. M. II. p. 377. — Stromate effuso, plerumque brevi, maculæformi, rarius ambiente, cortici innato, spurio; peritheciis monostichis, dense gregatis, cortici interiori immutato immersis, globosis, majusculis, peridermio haud colorato v. nonnihil expallente, plerumque parum elevato tectis, in collum brevissimum attenuatis ostioloque minutissimo, punctiformi, nigro, hemisphærico, vix prominulo instructis; ascis clavatis, longissime pedicellatis, octosporis, 60–80 ≃ 8– 675

10 p. sporif; sporidiis in asci lumine, apicem versus attenuato subdistichis v. conglobatis, cylindricis, curvulis, dilute fuscescentibus, 14–18 ≃ 3. — Spermogonia unicellularia; spermatiis filiformi-curvatis, 40–48 ≃ 1; cirrhis roseis v. luteis.

Hab. in ramis emortuis Fraxini excelsioris in Suecia, Germania, Italia, Britannia, Lusitania et Gallia.

2. **Cryptosphæria populina** (Pers.) Sacc. *Sph. populina* Pers. Ic. Fung. p. 52, t. 21, f. 5. *Sph. Corticis* Fr. nec auct. Angl. *Sphæria, Valsa* et *Cryptosphæria millepunctata* Nits. Pyr. Germ. p. 161, Fuck., Karst., Sacc. etc. *nec* Grev. — Stromate effuso, nunc brevi, nunc contra longe lateque effuso, ramosque ambiente, cortici innato, spurio; peritheciis corticis interioris parenchymati incolorato v. tandem atroinquinato immersis, peridermio contiguo, omnino non mutato, rarius parum elevato v. obscurato, ostiolis atropunctato tectis, monostichis, dense confertis v. laxe ac sine ordine sparsis, majusculis, globosis, collo brevissimo, ostiolo minuto, prominulo, hemisphærico, rugulóso, immo obscure sulcato instructis; ascis anguste clavatis, longissime pedicellatis, octosporis 40 ≃ 5–8 p. sporif.; sporidiis in asci lumine apicem versus attenuato subdistichis, cylindricis, curvulis, fuscescentibus, 8–12 ≃ 2. 676

Hab. in ramis emortuis Populi tremulæ, P. nigræ, P albæ in Suecia, Germania, Belgio, Italia, Sibiria, Lusitania, Fennia. — Var. *Prunorum;* sporidiis minoribus, 7–9 ≃ 1–1,5, subolivaceis. — Malmedy. — An hæc potius ad *E. myriocapam* referenda?

3. **Cryptosphæria vicinula** (Nyl.) Karst. Mycol. Fenn. II. 101. *Sphæria vicinula* Nyl. in Flora 1863, p. 322. — Stromate effuso, plerumque brevi, maculiformi, discreto vel confluente cortici interiori incolorato vel tandem atroinquinato innato; peritheciis immersis, peridermio plus minus elevato, lævigato, primum immutato, dein cinerascente, tandem in crustam tenuem, continuam, æqualem, atram mutato tectis, sphæroideis vel mutua pressione angulatis, collis brevissimis ostiolisque prominulis, hemisphæricis vel subsphæroideis, rugosis, tandem plus minus sulcatis et rudibus, minutis; ascis cylindraceo-clavatis, longissime pedicellatis, 43–60 ≃ 7–9 p. sporif.; sporidiis subdistichis, rectis, inæquilateralibus vel leniter curvulis, oblongatis, subfuscis, 9–14 ≃ 3–5. 677

Hab. ad corticem Salicum et Alni in Fennia et Lapponia passim. — Habitu, e stromatibus minoribus atque elevatioribus pendente, sporidiis et ascis majoribus a *C. millepunctata* diversa.

4. **Cryptosphæria myriocarpa** (Nits.) Sacc., *Valsa myr.* Nits. Pyr. Germ. 678

p. 159. — Stromate corticis parenchymati plus minus elevato innato, nunc longe effuso ramosque ambiente et eorum corticem in crustam continuam, æqualem, superficie punctulato-asperulam mutante, nunc varie interrupto undulato v. maculæformi, cum peridermio immutato v. rarius tandem nigrescente concrescente; peritheciis corticis strato supremo, haud nigrificato immersis, monostichis, densissime stipatis, globosis sed plerumque mutua pressione angulatis, collo brevissimo, ostiolo minuto, punctiformi, hemisphærico, peridermium perforatum parum superante instructis; ascis anguste clavatis, longissime pedicellatis, octosporis, 40–48 ≃ 5 p. sporif.; sporidiis in asci lumine utrimque angustato subdistichis, cylindricis, parum curvatis v. subrectis, pallide fuscescentibus 8–10 ≃ $1^1/_2$–2. — Spermogonia simplicia; spermatiis cylindricis, curvis, 24 ≃ 1.

Hab. in ramis exsiccatis Fagi sylvaticæ, prope Münster, Germania.

5. **Cryptosphæria sepulta** (Nits.) Sacc. *Valsa sepulta* Nits. Pyr. Germ. 679
p. 162. — Stromate longe lateque effuso, indeterminato, contiguo v. hinc inde interrupto, cortici crassiori innato, spurio; peritheciis corticis parenchymati immutato alte immersis, monostichis, dense stipatis, globosis, peridermio expallente tectis, collo brevi, ostiolo minimo obtusissimo, applanato, punctiformi, atro, ruguloso v. obscure quadrisulcato, peridermium perforante ac vix extante instructis; ascis clavatis v. oblongis, longissime pedicellatis, octosporis, 80–90 ≃ 8 p. sporif.; sporidiis in asci lumine utrinque maxime attenuato subdistichis v. conglobatis, cylindricis, curvulis, fuscentibus, 18–22 ≃ $2^1/_2$–$3^1/_2$.

Hab. in trunco Evonymi europæi in Westphalia. — *C. millepunctatæ* affinis, peritheciis profundius infossis, minoribus, densioribus, ascis sporidiisque majoribus etc. differt.

6. **Cryptosphæria ocellata** (Fr.). Ces. et De Not. Schema Sfer. p. 57. 680
Sph. et *Halonia ocellata* Fr. S. M. II. 480, *Sph. brevis* Sow. — Sparsa, peritheciis immersis globosis persistentibus nigris, ostiolis in disco truncato albo exsertis solitariis umbilicatis; ascis octosporis; sporidiis biseriatis, allantoideis, curvulis, hyalinis, 10 μ long.

Hab. in ramis Fraxini, Salicis in Suecia, Belgio, Britannia, Germania, Italia. — *Stictis* speciem primo obtutu refert; discus erumpens minutus ceraceus albus, demum vero nigrescens, in cujus centro adest ostiolum depressum opacum nigrum, fere ut in *V. leucostoma*, sed perithecia in cortice interiore nidulantia omnino simplicia, solitaria, glabra, nuda (nec pruinosa) atra, ple-

rumque evacuata, intus cinerascentia nec collabentia. Est quasi Sphæria simplex stromate instructa; structura ad Cytisporas accedente.

7. **Cryptosphæria rimulosa** Pass. Funghi Abiss. p. 187, t. V, fig. 10. 381
Peritheciis corticis parenchymati nigrificato immersis, subæqualiter dense sparsis, hinc inde confertioribus, peridermio crebre pustulato-rimoso tectis, ovoideis v. mutua pressione angulatis, collo brevi et ostiolo vix per rimas perspicuo instructis; ascis anguste clavato-fusoideis longe stipitatis, octosporis 20-25 ≃ 4 (ex icone); sporidiis subdistichis curvatis simplicibus e luteo fuscidulis 8 ≃ 2; paraphysibus nullis v. spuriis.

Hab. in ramis exsiccatis Acaciæ, Keren, Abyssinia.

8. **Cryptosphæria ligniota** (Fr.) Auersw. in Rabh. F. E. n. 1269 (non 682
vidi). *Sph. ligniota* Fr. S. M. II. 376. — Tecta, immersa, peritheciis stromate fuliginoso tectis, ostiolis erumpentibus depressis subtuberculosis.

Hab. in cortice Populi tremulæ in Suecia et Germania. — Specimina n. 1269 Rabh. F. E. sec. Rehm Asc. n. 433 spectant ad *C. populinam.* — *Eut. subcutaneæ* non absimilis, sed plagas elevatas non format. Perithecia globosa, valde obscura et stromate concoloria, quare nudis oculis in conspectum non veniunt, tenuia, parte inferiori in cortice demersa, superiore stromate floccoso-furfuraceo obtecta; intus evacuata tantum vidi; collis brevissimis, sed ostiola admodum distincta, in superficie corticis prominula, depressa, subrotunda, tuberculosa, nitidula.

9. **Cryptosphæria? rubrocincta** (Schwein.) Sacc. *Sphæria rubrocincta* 683
Schw. B. et C. Exot. fungi Schwein. p. 290. — Subtecta, peritheciis subglobosis brunneis, pruinosis, ostiolo brevissimo pulvere aurantiaco cincto; sporidiis breviter oblongis, curvulis, 6-5 μ. longis, 2-3-guttulatis.

Hab. in corticibus, Surinam.

10. **Cryptosphæria fissicola** (C. et E.) Sacc. *Sphæria* (obtectæ) *fissicola* 684
C. et E. New Jersey Fungi in Grevillea, VI, p. 94, t. 100, f. 32. — Tecta, epidermide rimoso-fissa; peritheciis globosis, atris; ostiolis obtusis, erumpentibus; ascis pyriformibus; sporidiis allantoideis, minutis, hyalinis, 8 μ. long.

Hab. in ramis Rosæ, New Jersey, Amer. borealis.

11. **Cryptosphæria vexata** (C. et E.) Sacc. *Sphæria* (obtectæ) *vexata* 685
C. et E. New Jersey Fungi in Grevill. V. p. 94. — Subgregaria, subimmersa tecta; peritheciis ovatis, atris; ascis clavatis; sporidiis

hyalinis, allantoideis 10 μ. long.; spermatiis rectis, linearibus minutis, 5 μ. longis.

Hab. in ramis corticatis Andromedæ ligustrinæ, New Jersey, Am. bor. — Perithecia gregarie effusa v. seriata, ostiolis conicis erumpentibus. — Spermogonia longius ostiolata.

12. **Cryptosphæria inordinata** (B. et C.) Sacc. *Sphæria inordinata* B. et C. North Amer Fungi n. 928. — Epidermide tecta, prominens; ascis clavatis; sporidiis allantoideis. 686

Hab. in ramis Rosæ lævigatæ, Carol. inf., Amer. bor. — Perithecia peridermio, dense et minute ab iisdem exasperato, tecta.

13. **Cryptosphæria propagata** (Plow.) *Sphæria propagata* Plow. in Grev. VII, 73. — Peritheciis seriatis, erumpentibus subsuperficialibus, mediocribus, quandoque confluentibus; ostiolis distinctis, papillatis; ascis cylindraceis 50–60 ≃ 8–11, octosporis; sporidiis allantoideis, 8–10 ≃ 2–3. 687

Hab. in racemis (pedunculis) Vitis, in California, Am. bor. — Sec. ipsum Plow. (Grev. VIII. 73) est forma *Eutypæ viticolæ*, quam conferas.

14. **Cryptosphæria secreta** (C. et E.) Sacc. *Sphæria* (obtectæ) *secreta* C. et E. New Jersey Fungi in Grev. V. p. 94. — Sparsa, epidermide tecta; peritheciis brunneis, globosis, demum applanatis; ascis clavatis; sporidiis allantoideis, hyalinis 10–12 μ. longis. 688

Hab. sub cortice Viburni, New Jersey, Amer. bor. — Perithecia omnino tecta, nec conspicienda nisi cortex secedat.

CRYPTOSPHÆRELLA Sacc. *Valsa* II. ++ Nits. Pyr. Germ. 163. (Etym. a *Cryptosphæria*, cujus est analoga). — Stroma et perithecia *Cryptosphæriæ*. Asci polyspori, stipitati. Sporidia allantoidea, hyalina. — Genus fructificatione *Cryptovalsæ*, stromate *Cryptosphæriæ*.

1. **Cryptosphærella Nitschkei** (Auersw.) Sacc. *Valsa Nitschkei* (Awd.) Nits. Pyr. Germ. p. 163. *Sphæria Nitschkei* Auersw. — Stromate latissime effuso, indeterminato, ramosque, quorum cortici innato, ambiente, spurio; peritheciis corticis parenchymati immutato immersis, monostichis, exiguis, subglobosis, remote sparsis, collo brevissimo, ostiolo minutissimo, punctiformi, peridermium perforante, vix prominulo, atro, obtusissimo, integro instructis; ascis cylindrico-clavatis, longissime pedicellatis, polysporis, 44–56 ≃ 9–10 p. sporif.; sporidiis numerosissimis, conglobatis, exilissime cylindricis, curvulis v. subrectis, hyalinis, 8–10 ≃ 1. 689

Hab. in ramis emortuis Salicis e sectione Capreæ cultæ in horto botanico, Münster, Germania.

CRYPTOVALSA Ces. et De Not. Schema Sfer. it. p. 29 (Etym. *cryptos* abditus, et *Valsa*). — Stroma effusum, eutypeum plerumque corticale, rarius ligneum, intus sæpius atroinquinans. Perithecia immersa, ostiolo parum emergente, sæpius exarato. Asci stipitati, polyspori, aparaphysati. Sporidia allantoidea, hyalino-luteola. Spermogonia in nonnullis nota, cytisporoidea.

1. **Cryptovalsa protracta** (Pers.) De Not. p. p. Sfer. ital. p. 40, t. 46, Sacc. Myc. Ven. Spec. p. 134, t. XIV, f. 11–13, *Valsa protracta* (Pers.) Nits. Pyr. Germ. p. 155. — Stromate longe lateque effuso, corticis crassioris, in superficie immutatæ, substantiam interiorem lignique suppositi superficiem atroinquinante; peritheciis cortici immersis lignoque adnatis monostichis, plus minus dense stipatis, rarius sparsis, sæpissime sub corticis rimis seriatim dispositis, atris, majusculis, ovatis, adscendentibus, in collum breve, crassum, cylindricum sensim attenuatis ostioloque nonnihil incrassato, parum prominulo, rotundato ac rimis 4 leviter exarato, tandem perforato instructis; ascis cylindrico-clavatis, longissime pedicellatis, polysporis, 75–100 = 9 (p. sporif.); sporidiis in asci lumine apicem versus maxime attenuato conglobatis, cylindricis, curvulis, dilute fuscescentibus, 10–12 = $2^1/_2$–3. 690

   Hab. in ramis corticatis Aceris campestris in Germania, Gallia, Italia, frequens. — Cl. Fabre, Sphér. Vaucl., ad hanc speciem forte non immerito ducit *C. ampelinam, C. Nitschkei* etc.

2. **Cryptovalsa ampelina** (Nits.) Fuck. Symb. 312, *C. protracta* De Not. p. p. *Echusias Vitis* Hazl., *Valsa ampelina* (Fuck.) Nits. Pyr. Germ. p. 156. — Stromate nunc longe lateque effuso Vitis sarmenta continue ambiente, nunc contra brevi, maculæformi, cortici immerso ejusque substantiam nec non ligni suppositi superficiem tandem atroinquinante, corticis strato supremo immaculato tecto, haud raro elevato-protuberante; peritheciis ligno adnatis, monostichis, dense confertis, nunc ordine æquali dispositis nunc seriatim ordinatis, majusculis, erectis, atris, exacte globosis, in collum breve, crassum, cylindricum subito attenuatis, ostiolo plus minus prominulo, rotundato v. conico-truncato, ruguloso, vix umquam conspicue sulcato instructis; ascis cylindrico-clavatis, longissime pedicellatis, polysporis, 75–90 = 8–9 (p. sporif.); sporidiis in asci lumine apicem versus plerumque vehementer attenuato con- 691

globatis, cylindricis, curvulis v. subrectis, pallide fuscescentibus, 9–10 ≃ $2^1/_2$; peritheciis spermatiiferis seriatis, peritheciis ascigeris plane æqualibus; spermatiis copiosis, cylindraceis, utrinque obtusis, rectis, continuis, hyalinis, 16 ≃ $2^1/_2$.

Hab. in sarmentis Vitis in Gallia, Italia, Germania. — *Sph. insitiva* Tode, Fr. forte huic spectat.

3. **Cryptovalsa Nitschkei** Fuck. Symb. Myc. 212 (sensu ampl.), Sacc. Myc. Ven. 134, t. XIV, f. 14, *Valsa Mori* Nits. Pyr. Germ. p. 157, *Crypt. protracta var.* Fabr. — Stromate effuso, corticis parenchymati innato, peridermio adhærente, immaculato ac peritheciorum ostiolis solum perforato tecto, crustam irregularem, sæpe interruptam, brevem, immo stroma valseum imitantem, plus minus elevatam, crustæformem formante; peritheciis ligno adnatis, majusculis, irregulariter monostichis v. fere distichis, plerumque dense stipatis, globosis v. mutua pressione angulatis, rarius laxe sparsis, atris, in collum crassum, cylindricum, breve subito attenuatis, ostiolo valde incrassato, subgloboso, majusculo, tandem leviter quadrisulcato, parum prominenti instructis; ascis anguste clavatis, longissime pedicellatis, polysporis, 60–66 ≃ 9 (p. sporif.); sporidiis conglobatis, cylindricis, curvulis, dilute fuscescentibus, 8–10 ≃ $2^1/_2$. 692

Hab. in ramis corticatis Mori, Corni, Cratægi, Carpini plurimarumque arborum in Germania, Gallia, Italia, Amer. austr. — Cfr. Mich. pag. 22–23 et Fabr. Sphér. Vaucl. pag. 71–74 ubi formæ et nutrices quam plurimæ adnumerantur. — A *Crypt. Rabenhorstii* præcipue differt peritheciis constanter minoribus ($^1/_3$–$^1/_2$ mill. diam.), ascis sporidiisque dimidio angustioribus. — An a præsenti specie rite separandæ sint *C. protracta* (Nits.), *C. ampelina* (Nits.) et *C. effusa* Fckl. dubitare licet.

4. **Cryptovalsa Pruni** Fuck. Symb. Myc. App. I, p. 321. — Stromate diatrypeo, latissime effuso, subcorticali, nigro; peritheciis sub stromate in cortice interiori nidulantibus, plerumque dense stipatis, globoso-ovatis, majusculis, ostiolis ut in *Crypt. Nitschkei* formatis, corticis rimis erumpentibus; ascis longissime stipitatis, clavatis, antice subobtusis, polysporis, 74 ≃ 8; sporidiis cylindraceis, sed utrimque parum attenuatis, curvatis, continuis, pallide fuscescentibus (in ascis), 10–12 ≃ 4. 693

Hab. in ramis siccis corticatis Pruni spinosæ, rarius prope Œstrich, Rhenogovia. — A *C. Nitschkei* et *C. effusa* ascis et sporidiis crassioribus recedit.

5. **Cryptovalsa effusa** Fuck. Symb. Mycol. p. 212. — Stromate sub- 694

corticali, late effuso; peritheciis in stromate irregulariter nidulantibus, majusculis, globosis, nucleo sordido; ostiolis prominulis, obtuso-conicis, opaco-atris; ascis longissime stipitatis, clavatis, polysporis, 56 ≃ 8 (p. sporif.); sporidiis farctis, cylindraceis, utrinque obtusis, curvatis, continuis, dilute fuscis, 8 ≃ $2^1/_2$.

Hab. in ramis exsiccatis Rosæ caninæ, quos sæpius omnino obducit, prope Œstrich (Germania).

6. **Cryptovalsa uberrima** (Tul.) Sacc. *Eutypa uberrima* Tul. Sel. Fung. Carp. II, 64. — Stromate corticali late ramos ambiente; peritheciis in acervulos minutos quaternariæ-formes digestis denique aggregatis, linea nigra varie excurrente circumscriptis; ostiolis vix extantibus, minutis, obtusis, rimosis; ascis clavatis, 10 μ. cr., polysporis; sporidiis allantoideis exiguis 6,5–8 ≃ 2. 695

Hab. in ramis Tiliæ europeæ in Gallia. — Spermogonia: spermatiis filiformibus, valde curvatis in cirrhos aureos denique propulsis fœta. — Habitus, sec. Nits., *Eutypæ leprosæ.*

7. **Cryptovalsa platensis** Speg. Fung. Arg. I, p. 181. — Peritheciis in acervulos valsiformes, parvulos, $^3/_4$–1 mill., digestis cortice immersis totos fere ramulos ambientibus minutis, globulosis $^1/_5$–$^1/_6$ mill., atris, contextu parenchymatico-sinuoso, olivaceo-fuligineo; ostiolis fasciculatis, superficiem matricis attingentibus, sed numquam exsertis, atris; ascis cylindraceo-clavatis p. sporif. 60–65 ≃ 10–12, stip. 20–25 ≃ 5, sursum obtuse rotundatis, deorsum in pedicellum desinentibus, polysporis, aparaphysatis; sporidiis botuliformibus, eguttulatis, 6 ≃ 1–$1^1/_2$, dilute olivaceis. 696

Hab. ad ramulos emortuos Salicis Humboltianæ a San José de Flores, Mart. 1880 (Amer. merid.). — *Crypt. uberrimæ* (Tul.) videtur affinis.

8. **Cryptovalsa extorris** Sacc. Fungi Ven. Ser. IV, p. 17 et Fungi ital. tab. 160. — Stromate late ramos ambiente et ligni superficiem infuscante; peritheciis ligno adnatis v. parum infossis, nunc dense valsiformiter stipatis, nunc discretis, e globoso conoideis, $^1/_2$–$^3/_4$ mill. diam., e mutua pressione quandoque angulosis, atris, hyphis conidiophoris brevibus dense articulato-nodulosis, fuligineis, præcipue ætate juvenili, vestitis; conidiis ovoideis dilute fuligineis, 5 ≃ 3; ostiolis breve cylindraceo-conoideis, vertice rotundato, 2–4 radiatim exaratis, minuteque pertusis; ascis crebris, clavatis, longe stipitatis p. sporif. 70–80 ≃ 12–14, stipite 70–80 long., myriosporis; sporidiis dense conglobatis, minutissimis, cylindraceis, curvulis, 6–8 ≃ 1, lutescenti-viridulis, 3-guttulatis. 697

Hab. in ramis tandem decorticatis Mori albæ, Vittorio (Italia bor.) rarius. — Characteribus conidiorum et sporidiorum statim a ceteris speciebus mihi notis dignoscitur, neque cum *Diatrypella* genere ullo modo conjungi potest.

9. **Cryptovalsa Rabenhorstii** (Nits.) Sacc. Myc. Ven. 135, tab. XIV, fig. 47–20, *Valsa Rabenhorstii* Nits. Pyr. Germ. pag. 158. *Sph. spiculosa* v. *Robiniæ* Rabh. — Stromate effuso, plerumque brevi, maculæformi, immo valsæformi, peridermio, haud nigrefacto tecto, corticis parenchymati immerso ejusque substantia, specie immutata formato, ligno rimoso-verrucosam; peritheciis submonostichis, densissime stipatis, subglobosis v. mutua pressione angulatis, immersis, atris, collo brevissimo cylindrico, crasso, ostiolo nonnihil incrassato, obtusissimo, rotundato, tandem obscure quadrisulcato, parum exserto, rarissime elongato, cylindrico instructis, hinc inde, peridermio secesso, tandem liberis; ascis clavatis v. fere oblongis crassiusculis, longissime pedicellatis, polysporis, 70–80 ≃ 14–16 (p. sporif.); sporidiis conglobatis, cylindricis, curvulis, fuscescentibus, 14–16 ≃ 3–4. 698

Hab. in ramis corticatis Robiniæ, Mori, Coryli, Fici, pluriumque arborum in Germania et Italia. — Cfr. Michel. I, p. 21 ubi matrices et formas 22 descripsi. — Perithecia globosa, intus, nitida, $^3/_4$ mill. diam., nunc subsolitaria, nunc *Valsæ* vel *Eutypæ* ad instar acervata, nunc seriatim disposita, modo corticola, modo ligni basi insculpta; stroma nigrescens inter perithecia excurrens plus minus manifestum; ostiola vertice rotundata, pertusa, levia v. rugulosa, numquam vere sulcata.

10. **Cryptovalsa arundinacea** Sacc. Fungi Ven. Ser. IV, p. 17, et F. ital. tab. 159. Mycoth. Ven. III. n. 210. — Stromate serialiter longe effuso sed linea nigra nullo circumscripto; peritheciis in series parallelas longiusculas plus minusve dense stipatis, in culmi substantia extima omnino immersis, corticeque lineatim rimoso et elevato tectis, majusculis, globulosis, subdepressis, $^2/_3$ mill. diam., atris, extus albido-furfurceis; ostiolis breve cylindraceis crassiusculis corticem parum excedentibus, vertice rotundatis subincrassatis, levibus v. obsolete rimolosis, tandem late pertusis; ascis copiosis crasse clavatis, longissime stipitatis, apice rotundatis, p. s. 60 ≃ 12–13, stipite 50 lg., polysporis; sporidiis dense conglobatis cylindraceis, curvulis 12–16 ≃ 3, guttulatis, hyalino-lutescentibus. 699

Hab. in culmis Arundinis Donacis, Vittorio (Ital. bor.).

11. **Cryptovalsa depressa** (Fr.) Sacc. *S. depressa* Fries, in Mont. 700

Syll. Crypt. n. 819. Notice etc., in Ann., 2, 1, p. 297, t. 13, f. 1, Ces. et De Not. Schema Sf. 203. — Effusa, immersa; peritheciis extus intusque nigris, sphæricis, confertis, nunc cortici interiori, nunc et ligno inquinato immersis, ostiolis maximis superficialibus demum cupulæformibus; ascis fusiformi-subclavatis sporidia copiosa oblonga incurviuscula inordinate foventibus.

Hab. in ramis Carpini, Sedan (Gallia). — An var. *Cryptovalsæ Nitschkei?*

12. **Cryptovalsa Citri** Catt. Arch. Bot. Critt. II. 379, t. XXIII, f. 1-4. 701
— Stromate longe lateque extenso v. valsiformi-interrupto, cortice secedente, emergente, lignum penetrante lineolisque nigris circumscripto; peritheciis ligno immersis confertis non vero coalitis, ostiolis brevibus, papillatis cum stromatis superficie concretis; ascis crasse clavatis stipitatis, p. sporif. 74 μ. longa, polysporis; sporidiis allantoideis, curvis, hyalinis, 12 ≃ 3.

Hab. in radicibus crassioribus, cortice sæpe orbatis, Citri Limonii, Brindisi, Ital. merid. et Sicilia.

13. **Cryptovalsa elevata** (Berk.) Sacc. *Sphæria elevata* Berk. Decad. 702
of fung. n. 71, Curr. Linn. Trans. XXII, t. 47, f. 109, *Eutypa elevata* Cooke Handb. n. 2404, *Crypt. Rabenhorstii* v. *Fici Caricæ* Mich. I. 22. — Elongata, emergens, nigra v. grisea; peritheciis gregariis, globosis, mediocribus, ligno immersis; ostiolis conicis, vertice punctiformi; ascis clavatis, polysporis; sporidiis allantoideis, olivaceis, 15-17 μ. long. (Curr.).

Hab. in ramis emortuis Evonymi in Britannia, Fici Caricæ, in Italia. — Sec. Berk. sporidia 7,5-8,5 μ. long. — Lecta quoque in Tasmania.

DIATRYPE Fr. p. p. Nits. Pyr. Germ. p. 64. (Etym. a *diatrypao*, perforo). — Stroma a matricis substantia heterogeneum, erumpenti-subsuperficiale, effusum v. disciforme. Perithecia stromate immersa, collis v. ostiolis non v. vix convergentibus. Asci octospori, stipitati, aparaphysati; sporidia allantoidea, minuta, subluteola. — In nonnullis spermogonia et conidia nota (*Cytispora* et *Libertella*). — Genus, speciebus primariis prædistinctis, rite definitum: quibus additæ sunt plurimæ species, imperfecte descriptæ, quarum pars forte ad *Eutypam* v. *Eutypellam* aptus transferenda videtur.

1. **Diatrype disciformis** (Hoffm.) Fr. Summ. Veg. Scand. p. 385. Nits. 703
Pyr. Germ. p. 67. Sacc. Myc. Ven. Spec. p. 150, t. XV, f. 15-17 et Fungi ital. t. 462. *Sph. disciformis* Hoffm. Veg. Crypt. I, p. 15.

Sph. depressa Sow. — Stromate perithecigero orbiculari, disciformi, plano v. nonnihil convexo, primo hypophlœode, ligno adnato, deinde erumpente peridermioque tegente secesso, superne nudato, libero, fuscescente ac tenuiter albido-pruinoso, tandem glabro, superficie nigricante intus albido, parte insculpta nigro-limitata; stromate conidifero orbiculari, magnitudine stromatis perithecigeri, conico-depresso, saturate aurato leviterque sulcato, deinde nigrescente; conidiis lineari-cylindricis, filiformibus, tenerrimis, vehementer curvatis, in sterigmatibus brevibus acrogenis; peritheciis in singulo stromate 25–50, monostiche denseque stipatis, ovatis v. fere angulatis, collis brevissimis ac tenuibus ostiolisque minimis, obtusissimis, vix prominulis, integris v. radiatim quadrisulcatis instructis; ascis anguste oblongis, longissime pedicellatis, tenerrimis, octosporis, 25–40 ≃ 3–5 p. sporif.; sporidiis subdistichis, cylindricis, curvatis, dilute fuscescentibus, 6–8 ≃ $1^1/_2$–2. — Status conidicus *Libertellæ* speciem sistit.

Hab. in ramis corticatis Fagi sylvaticæ, rarius Viburni, Pruni, Betulæ, Alni, Rhamni, Quercus, in tota Europa et Amer. bor. — Var. *umbonata:* stromate duplo majori quam in forma normali, medio 1–3 umbonibus colliculoso; ascis et sporidiis non diversis. In ramis Pseudoplatani, Jura (Fuck.). — Var. *Magnoliæ*, Thüm. Differt disco vix convexulo, minore, atro, ostiolis indeterminatis; asci, sporidiaque non diversa sunt. In ramis Magnoliæ glaucæ, New Field, Amer. bor. (Ellis). — Var. *xanthostroma:* stromate tandem citrino. In ramis Salicis Capreæ, Œstrich, Rhenogovia (Fuck.).

2. **Diatrype bullata** (Hoffm.) Fr. Summ. Veg. Scand. p. 385, Sacc. Myc. Ven. Spec. t. 15, f. 10–20, *Sphæria bullata* Hoffm. Veg. Crypt. I. p. 5, *Sph. depressa* Bolt., *Sph. Placenta* Tode. — Stromate sub peridermio nato lignoque adnato, deinde erumpente, superne nudato, orbiculari v. ovali, plano-convexo v. fere disciformi, haud raro confluente, nigricante, intus albido, parte immersa nigro-limitato; peritheciis monostichis, numerosissimis, dense stipatis, ovatis v. mutua pressione angulatis, collis brevibus ostiolisque punctiformibus, immersis v. nonnihil prominulis, integris, pertusis instructis; ascis anguste clavatis, longissime pedicellatis, octosporis, 40–50 ≃ 4–6 p. sporif.; sporidiis subdistichis v. in asci parte inferiore sæpissime monostichis, cylindricis, curvulis, dilute fuscescentibus, 6–10 ≃ $1^1/_2$–$2^1/_2$. 704

Hab. in ramis emortuis Salicum et Populorum (Quer-

cus, Coryli) in tota Europa et Amer. bor., sed parce. — Asci et sporidia præcedentis, nisi paulo majora; sed in *Diatrype bullata* acervuli plerumque irregulares, latiores, perithecia in quoque acervulo numerosiora, subsphærica nec ovoidea, et paulo minora.

3. **Diatrype Stigma** (Hoffm.) Fr. Summ. Veg. Scand. p. 385. Nits. Pyr. Germ. p. 65. *Sph. Stigma* Hoffm. *Sph. undulata* Fr. et *Sph. decorticata* DC. (vix var.) — Stromate per peridermium erumpente, demum nudato, longe lateque effuso, sæpe ambiente, applanato, primo pallescente, dein fuscescente, albido-pulverulento, demum atro, crassit. circiter 1 mill.; peritheciis ovoideis ostiolis subimmersis vel nonnihil prominentibus, planiusculis, integris vel quadrigonis præditis; ascis longissime pedicellatis, 30-50 ≃ 4-6 p. sporif.; sporidiis 6-12 ≃ 1,5-2. — Stromata conidifera (*Nemaspora microspora* Desm.) perithecigeris superposita vel propinqua, suborbicularia, plerumque confluentia lateque extensa, reticulatim exarata, læte aurata, deinde ex cinereo nigrescentia; conidiis cylindraceis, curvulis 4-5 ≃ 1,5 vel filiformibus, 24-28 ≃ 1,5. 705

Hab. in ramis corticatis Fagi, Carpini, Castaneæ, Quercus, Pruni, Tiliæ, Pyri, Cratægi, Betulæ, Coryli, Mespili, Rhamni, Rosæ etc. in tota Europa, Sibiria et Amer. bor.

4. **Diatrype rimosa** Fuck. Symb. myc. p. 231. — Stromate erumpente, semper convexo et subhemisphærico, 1-2 lineas lato, demum libero, intus albo, epidermidis laciniis patulis cincto, in superficie atro-fusca, opaco, multi-rimoso, exasperato, ostiolis punctiformibus, non prominulis, obscuris; ascis fusoideis, 25-35 ≃ 4; sporidiis allantoideis, 6-7 ≃ 1,5, dilute luteolis. 706

Hab. in ramis corticatis Cratægi Oxyacanthæ, rarius, Œstrich, Rhenogovia. — Affinis *D. disciformi*, sed certe diversa.

5. **Diatrype platystoma** (Schw.) Berk. N. Am. Fungi p. 164, Ellis in M. U. n. 63, *Sphæria platystoma* Schw. Syn. Car. n. 43, Fr. S. M. Myc. II, 351. — Late effusa, rimosa, nigro-marginata, atra, intus concolor, peritheciis confertis globosis, ostiolis sparsis explanatis; «ascis clavatis, longe stipitatis, 30-32 ≃ 3,5-4; sporidiis allantoideis, 7-7,5 ≃ 1,5, subhyalinis». 707

Hab. in ramis Hamamelidis, Aceris rubri etc. in Carolina, New York, Pensylvania (Amer. bor.). — Similis *D. Stigmati*, longissima, unciam lata, rimosa, margine nigro tenuissimo (sterili) in epidermide exarato cincta; perithecia cinerea, polysticha; Præcipue distinguitur ostiolis latis, Peziæ formam æmulantibus et defectu stromatis albi.

6. **Diatrype hypoxyloides** De Not. Sfer. ital. 26, t. 24. — Epider- 708
mide decedente demum denudata; stromate oblongo, ambitu marginato, disco levi plumbeo, vix rimoso, ostiolis impressis punctato, carbonaceo, fragili, intus atro; peritheciis contiguis, obtuse prismaticis; ascis elongato-clavatis, p. s. 24-28 ≃ 3-4; sporidiis allantoideis, curvulis, 5 μ. longis, hyalinis.

Hab. in trunco humi strato Juglandis regiæ, prope lacum Verbanum (Ital. bor.). — Affinis *D. Stigmati*, a qua differt disco plumbeo, sporidiis minoribus, peritheciis magis stipatis.

7. **Diatrype macrothecia** Speg. Fungi Arg. Pug. III. n. 51. — Stro- 709
matibus laxe gregariis, ellipticis v. elliptico-elongatis v. confluendo difformibus, horizontalibus, primo epidermide tectis, dein erumpenti-liberis, parum prominulis, atris, magnitudine ludentibus 2-10 (sæpius 4-5) mill. long., 1-4 (sæpius 2) mill. lat., subcupulato-depressis, atris, levibus, ex ostiolis prominulis punctato-asperulis; peritheciis dense monostiche stipatis 15-50, globosis, atris, primo intus albis, dein nucleo hyalino-fuscescente farctis, $^1/_3$-$^1/_4$ mill. diam., in ostiola conica, apice obtusiuscula, integra vix prominulo-exerta elongatis, coriaceo-membranaceis; ascis cylindraceo-clavatis, sursum truncato-rotundatis, ac crassissime tunicatis, luce refracta unifoveolatis, deorsum in pedicellum prælongum desinentibus p. sp. 30 ≃ 6-7, ped. 100-120 ≃ 2-3, fasciculatim ex hyphis proligeris oriundis, octosporis, aparaphysatis; sporidiis distichis v. subdistichis cylindraceo-elongatis, curvulis utrinque obtuse rotundatis, et 1-guttulatis, 7-8 ≃ 1-1,5, granuloso-farctis, hyalinis v. sub-chlorinis.

Hab. in palo corticato vetusto Pruni Cerasi, in hortis a la Boca del Riachuelo, (Amer. austr.). Jun. 1880. — Primo visu forma parvula v. junior *D. Stigmatis* videtur, sed stromatibus horizontaliter erumpentibus, matrice semper arcte corticata, cæterisque characteribus fructificationis non comparanda. Obturaculus minutus ascorum iodi ope cœrulescit!

8. **Diatrype asterostoma** B. et C. North Amer. Fungi n. 853. — Pu- 710
stulis elevatis; ostiolis stellatis; stromate albo; sporidiis allantoideis, majoribus, octonis.

Hab. in ramis dejectis Betulæ, Mori etc. in Carolina, Oneida, New Jersey.

9. **Diatrype Hystrix** (Tod.?) Fr. Summa V. S. 385, Berk. et Br. Ann. 711
N. H. n. 840 (nec Curr., nec De Not.) *Sph. Hystrix* Tode F. M. fig. 127, sec. Berk. — Transverse erumpens, depressa, ovalis, sa-

tis plana, nigra, intus brunnea, ostiolis rostellatis, interdum sursum incrassatis; ascis ..... sporidiis allantoideis, minutis, 5–7 ≃ 1–2.

Hab. in ramis Aceris Pseudoplatani in Britannia et Amer. bor. (etiam in Benzoin odorifera).

10. **Diatrype fibritecta** C. et Ellis New Jersey Fungi in Grevillea n. 33. 712
— Pustulis longitudinaliter erumpentibus, subseriatis; ostiolis prominulis exasperata, stromate atrobrunneo; ascis minimis, clavatis, 40 μ. long.; sporidiis allantoideis, hyalinis, 5 μ. longis.

Hab. in cortice Juniperi virginianæ in New Jersy, Am. bor. — Pustulæ minutæ, fibris corticalibus partim velatæ; ostiola sæpe elongata, breviora tamen quam in *D. Hystrice*.

11. **Diatrype Aurantii** (De Not.) Sacc. *Sphæria Aurantii* De Not. 713
Micr. ital. Dec. VIII, p. 119, fig. III. — Acervulis corticolis, erumpenti-superficialibus, disciformibus, colliculosis, 2–2,5 mill. diam.; peritheciis globosis, nigris monostichis, ostiolis parum eminentibus, breve cylindraceo-truncatis; ascis fusoideis, sessilibus, aparaphysatis, 50 ≃ 8–9; sporidiis allantoideis hyalinis, curvulis, 12 ≃ 3–3,5.

Hab. ad ramos dejectos Citri Aurantii, Milis (Sardinia). 714

12. **Diatrype corniculata** (Ehrh.) B. et Br. Cooke Handb. n. 2438.
Sphæria corniculata Ehrh., Fr. S. M. II, 584. — Innata, stromate albido, conceptaculo nigro tecto, peritheciis decumbentibus, ostiolis confertis subcylindricis distinctis lævibus; ascis clavatis, octosporis; sporidiis allantoideis, 10–12 μ. longis.

Hab. in ramis exiccatis Salicis, Fraxini, Quercus in Suecia, Germania, Britannia, Amer. bor. — Peridermio velata, exceptis ostiolis longe exertis, umbilicatis.

13. **Diatrype chlorosarca** B. et Br. Fungi of Ceylon n. 1080. — Parva, pustulata, orbicularis, intus viridis, supra plana, ostiolis abditis; ascis clavatis; sporidiis allantoideis 7–9 μ. long. 715

Hab. in ramis in ins. Ceylon. — Multo minor quam *Eutypa flavo-virens*, cui stromate viridulo affinis.

14. **Diatrype collariata** C. et Ellis New Jersey Fungi in Grevillea 716
n. 33. — Pustulis longitudinaliter erumpentibus, sæpe seriatis, maxime elevatis; ostiolis nitidis longissimis, cylindraceis, in collaria brunnea congestis; sporidiis allantoideis, 8–10 μ. long.

Hab. in ramis Caryæ albæ in New Jersey, Am. bor. — Ostiola usque ad medium in collarium coalita. Species prædistincta.

15. **Diatrype capensis** Kalch. et Cooke. Grev. 1880, p. 28. — Erum- 717
pens, elliptica, atra, convexa; peritheciis paucis, magnis; ostiolis,

pertusis; ascis clavatis; sporidiis linearibus, curvulis pallide fuscis, 10 ≃ 2.

Hab. in ramis Cassinopsis capensis et Rubi pinnati in Africa australi.

16. **Diatrype caminata** Kalch. et Cooke. Grev. 1880, p. 28. — Erumpens, suborbicularis, convexa, nigrescens; ostiolis exertis, cylindricis, obtusis, truncatis; ascis clavatis; sporidiis linearibus, curvulis, hyalinis, 12 ≃ 3. 718

Hab. in ramis in Africa australi. — Ostiola exerta abrupte truncata.

17. **Diatrype leucocreas** Mont. Syll. Crypt. n. 745 et Fl. Alg. I, p. 457, sub *Sphæria.* — Effusa, confluens, convexo-plana, rugoso-colliculosa, nigra, opaca, intus alba, linea atra circumscripta; peritheciis oblongo-ovatis in collum breve attenuatis, ostiolis vix prominulis radiatis; ascis crasse clavatis, 60 ≃ 6-7; sporidiis allantoideis, minutis, ut *D. Stigmatis.* 719

Hab. ad caudicem vetustum, Birmandreis Algeriæ (Durieu).

18. **Diatrype consobrina** Mont. Syll. Crypt. n. 747 et Fl. Alg. p. 462, sub *Sphæria.* — Tecta, lineari-oblonga, confluens, atro-inquinans; peritheciis membranaceis seriatis, stromati fuliginoso immersis evacuatis intus albis, ostiolis globosis minutis erumpenti-prominulis; sporidiis allantoideis, minutis, ut *D. Stigmatis.* 720

Hab. in culmis Arundinis mauritanicæ putredine fere consumptis, Alger (Durieu).

19. **Diatrype Mac-Owaniana** Thüm. F. Austro-Afric. VI. n. 117. — Stromate orbiculari, elevato-subdisciformi, convexo, erumpente, epidermide subcincto, aterrimo, intus homogeneo albo; ostiolis crasse punctiformibus, atris, rotundis; peritheciis numerosis; ascis gracilibus cylindricis, subcurvatis, apice basive angustatis, hyalinis octosporis, longissime stipitatis, 32-36 ≃ 6; sporidiis cylindricis, utrinque rotundatis, binucleatis, simplicibus, arcuatis, hyalinis, vel dilute flavescentibus, 5-7 ≃ 1,5-2; paraphysibus numerosissimis, cylindricis, simplicibus, apice acutatis, hyalinis. 721

Hab. in ramulis emortuis Cassineos capensis in sylvis montis «Boschberg» p. Somerset-East, Promont. bonæ spei. Africa (Mac Owan).

20. **Diatrype laurina** Rehm., Thüm. Contr. ad Myc. Lusit. n. 280. — Stromate irregulari, erumpente, plerumque rotundo, nigro, 1 mill. d., 0,8 mill. alto, hemisphærico-convexulo, duodecim perithecia in stromate albido includente, ostiolis haud conspicue prominulis; ascis 722

longestipitatis, cylindrico-clavatis, subrectis vel minime arcuatis, hyalinis, vertice rotundatis, 40 ≃ 7; sporidiis octo, cylindraceo-curvatis vel fusiformibus, utrinque rotundatis, ad polos guttulatis, continuis, achrois, 6-7 ≃ 2,5.

Hab. in Lauri nobilis ramis emortuis, Cerco dos Jesuitas pr. Coimbra (Lusitania) (Mesnier).

21. **Diatrype ruficarnis** B. et C. Cuban Fungi n. 842. — Peritheciis 723
aggregatis hic illic in pustulas irregulares minutas erumpentibus; ostiolis papillatis; stromate rufo; sporidiis allantoideis, 12 μ. long.

Hab. in ramis Diptericis odoratæ (Tonka) in Cuba. — Perithecia nunc pustulatim congesta, nunc effusa, ut in *Eutypa lata*.

22. **Diatrype russodes** B. et Br. Fungi of Ceylon n. 1079. — Gre- 724
garia, pustulata; peritheciis ellipticis collo brevi cylindrico, ostiolo obtuso; sporidiis octonis, allantoideis, 8-10 μ. long.

Hab. in corticibus in Ceylon. — Affinis *D. Duriæi*, ostiolis tamen differt.

23. **Diatrype polycocca** Fuck. Symb. Myc. p. 231. — Stromate or- 725
biculari, disciformi, parum convexo, erumpente, corticis peridermio cincto, atro-fusco, intus nigro, 1-2 lineas lato; ostiolis valde prominulis, crassis, 4-6sulcatis, obtuso-conicis, atris, peritheciis globosis, numerosis; ascis longissime stipitatis, acuminatis, parte sporifera elliptica, 44 ≃ 8, 8sporis; sporidiis cylindraceis, curvatis, dilute flavis, 16 ≃ 4.

Hab. in ramis corticatis Aceris opulifolii, vere, in Jura (Helvetia) ubi legit Morthier.

24. **Diatrype plagia** B. et C. Cuban Fungi n. 854. — Pustulis trans- 726
versim erumpentibus; ostiolis substellatis; stromate parvo fusco; sporidiis octonis allantoideis.

Hab. in ramis Liriodendri, in Carolina inf., Amer. bor.

25. **Diatrype orthosticha** Mont. Syll. Crypt. n. 750 et Fl. Alg. p. 520, 727
sub *Sphæria*. — Tecta; peritheciis gregariis ovoideis, globoso-depressis, stromate subcorticali immersis, longitrorsum seriatis, ostiolis per cuticulam obtritam seorsim aut conjunctim erumpentibus, eumorphis, dein applanato-rugulosis, tandem elabentibus; ascis clavatis, octosporis; sporidiis allantoideis (ut in *Eutypa lata*).

Hab. in trunco Ricini communis, Alger (Durieu).

26. **Diatrype theloides** B. et Br. Fungi of Ceylon n. 1082. — Pu- 728
stulata; ostiolis lævibus in disco parvo erumpente collectis; sporidiis allantoideis, 7-8 μ. longis.

Hab. in ramis, Central province in Ceylon. — Pustulæ peridermio arctæ adnatæ, idemque subinde mere elevantes.

27. **Diatrype tenuissima** Cooke, Rav. Fung. Amer. Cent. III, et in Grev. VI, p. 144. — Tenuissima, effusa, cinerea; ostiolis minutis, punctiformibus, vix elevatis; ascis subcylindraceis; sporidiis linearibus, vix curvulis, hyalinis, 7 μ. longis. 729

Hab. in cortice Perseæ, Aiken, Carol. austr., Am. bor.

28. **Diatrype discostoma** Cooke, Rav. Fung. Amer. Cent. III. Grevill. VI, p. 144. — Elongato-effusa, nigra; ostiolis vix elevatis, discoideis, applanatis; ascis clavatis; sporidiis minimis, linearibus, curvulis, 6 μ. longis. 730

Hab. in ramis Carpini, Aiken in Carolina infer. (Amer. bor.). 731

29. **Diatrype Durieui** Mont. Syll. Crypt. n. 748 Fl. Alg. p. 405, t. 25, f. 7, sub *Sphæria.* — Innata, pustulata, confluens; conceptaculo integro atro, stroma corticale crassum cingente; peritheciis confertis oblongis erectis in ostiola discum planum epidermide fissa obvallatum obliterantia hemisphærica rugoso-rimulosa, sicca collapsa cupulæformia productis; «ascis octosporis, 30–40 ≃ 7; sporidiis allantoideis minutis, flavidulis, 7–9 ≃ 1,5; sec exempl. americana».

Hab. in cortice Quercus Mirbeckii, La Calle (Durieu), Quercus, Magnoliæ, Aceris, New Jersey, Connecticut, Carolina. — Sec. Cooke *D. Duriæi* in Thuem. M. U. n. 275, eadem est ac *D. albopruinosa* Schw.; sed exempl. americana, quæ vidi ex Thuem. Raven. et Ellis, eamdem speciem sistunt. Hæc ad *Eutypellas* nutat, e. g. *E. cerviculatam.*

30. **Diatrype Eucalypti** Cooke et Harkn. Grevill. IX 1881, p. 85. — Stromatibus suborbicularibus, convexis, nigris; ostiolis conicis sulcatis; ascis clavatis, longe stipitatis; sporidiis leniter curvis, utrinque obtusis, hyalinis, 10 ≃ 1,5. 732

Hab. in ramis Eucalypti Globuli, in California, America boreali (Harkness).

31. **Diatrype Caricæ** De Not. Sf. ital. p. 28, t, 28. — Peritheciis parvis gregibus matrici (ligno) insculptis, stratoqne stromatico atro velatis exceptisque; peritheciis monostichis in quoque acervulo paucis v. subsolitariis, sphæroideis, v. irregularibus, in collum breve attenuatis; ostiolis emergentibus papillatis; ascis subclavatis, deorsum attenuatis, octosporis; p. s. 40 ≃ 7; sporidiis cylindraceis, curvulis, hyalinis, 12 μ. longis. 733

Hab. in ligno denudato Fici Caricæ, prope Genuam, Italia boreali.

32. **Diatrype acericola** De Not. Sfer. ital. 28, tav. 27. — Stromatibus verruciformibus, innato-erumpentibus, scabris, atris, rotundis v. oblongis, 3-4 mill. long.; peritheciis in quoque acervulo numerosis, ovoideo-oblongis, stipatis monostichis, raro superimpositis, mutua pressione sæpe angulatis; ostiolis emergentibus, 3-4-sulcatis, v. rugosis, obtusis; ascis elongato-clavatis, 8-sporis, p. s. 20-22 ≃ 4-5; sporidiis allantoideis, curvulis, hyalinis, 10 μ. longis. 734

Hab. in ramis corticatis Aceris campestris prope lacum Verbanum (Ital. bor.).

33. **Diatrype Daldiniana** De Not. Recl. Pirenom. p. 481. — Acervulis eminentibus, pulvinatis, peridermio arcte cinctis, aterrimis, verruculosis, $2^1/_2$ mill. diam. intus pallidis; peritheciis grossis submonostichis, ovoideis; ostiolis emergentibus, crassiusculis; ascis tereti-clavatis, stipitatis, apice truncatis p. s. 50 ≃ 8; sporidiis distichis, allantoideis, 12-15 ≃ $2^1/_4$, flavidis. 735

Hab. in ramis crassioribus Mori albæ in Italia boreali et Gallia.

34. **Diatrype tristicha** De Not. Recl. Piren. ital. p. 481. — Ligno innascens, demum denudata; stromatibus subhemisphæricis, atris, ob ostiola emergentia scabridis, extus atris, intus pallidis; peritheciis membranaceis subtristichis, rotundatis v. obtuse angulatis; collis elongatis; asci octosporis; sporidiis allantoideis, pallide luteolis. 736

Hab. in ramis Rosarum sylvaticarum, Valsesia (Ital. bor.).

35. **Diatrype radulans** Berk. et Curt. Exot. Fung. Schwein. p. 287. — Pustulata, minor, circumscripta; peritheciis paucis, pruinosis; ostiolis elongatis, sulcatis, demum deciduis; ascis octosporis; sporidiis allantoideis, 6-6,5 μ. longis. 737

Hab. in ramulis emortuis, Surinam. — Affinis *D. Duriæi*, sed ostiola longiora.

36. **Diatrype prominens** Cooke et Harkn. Grevill. 1881, p. 85. — Erumpens, oblonga, convexa, nigra, elevata; ostiolis prominulis sulcatis; ascis clavatis, sessilibus; sporidiis leniter curvis, utrinque obtusis, 12-13 ≃ 2, hyalinis. 738

Hab. in ramis Arbuti Menziesii et Mimuli («?») in California, Am. bor. (Harkness).

37. **Diatrype smilacicola** (Schw.) Berk. North Amer. fungi, ~~pag. 165~~ *Sphæria smilacicola*, Schw. in Fr. Elench. Fung. II, 71. — Orbicularis, hemisphærica, fragilis, lævis, atra, stromate pulverulento fuligineo, ostiolis prominulis; sporidiis allantoideis (Berk.). 739

Hab. in ramis Smilacis rotundifoliæ in Carolina et Pen-

sylvania. — Ab *Hypox. fusco*, cujus formas minores refert, peritheciis immersis recedit. Orbicularis, lineam vix lata, depresso-hemisphærica, basi applanata, opaca, atra, facie Sphæriæ cujusdam simplicis e tribu Sph. pertusæ; intus vero peritheciis plurimis immersis tenuibus fragilibus instructa. Stroma tenue, fragile, demum subpulverulentum. Ostiola minuta, punctiformia, primo latentia. — Ab *Hypox. smilacicolo* Howe prorsus diversa.

38. **Diatrype glomeraria** Berk. in Fl. N. Zel. II, 205, t. CVI, fig. 13. — 740
Erumpens, angulata vel confluente elongata, stromate parco, pallido, peritheciis ovatis, collo brevi; ostiolis obscuris; ascis clavatis, subsessilibus; sporidiis octonis curvis, allantoideis, majusculis, 14–15 μ. long.

Hab. in ramis levioribus Rhipogoni parviflori, Dunedin in Nova Zelandia. — Pustulæ 1 mill. crassæ quandoque stromate brunneo connexæ. In exempl. a Cl. Cooke communicatis asci 28–30 ≃ 8–8,5; sporidia 12 ≃ 2–3, olivacea.

39. **Diatrype?? tinctor** (Berk.) Sacc. *Sphæria tinctor* Berk. Decad. 741
n. 96. — Effusa, innata, plana, superficie sculpturam matricis e mycelio miniatæ referens, intus atra; peritheciis elongatis, collo brevi, ostiolo inconspicuo.

Hab. in ligno emortuo Platani occidentalis, Ohio (Lea). — Stroma 1 mill. crassum; ostiola externe inconspicua, sub lente depressa. Analoga *D. Stigmati;* sed fructificatio a Berk. non descripta.

40. **Diatrype? pachyloma** (Lév.) Sacc. *Sphæria* (lignosa) *pachiloma* 742
Lév. Ann. scienc. nat. V, 1846, pag. 259. — Receptaculo effuso applanato orbiculari vel ovato intus extusque nigro margine prominulo cincto; peritheciis ovatis immersis, ostiolis depressis.

Hab. in Chili ad cortices (A. Gay in herb. Mus. Par.). — Affinis *Diatrypi Stigmati* sec. Lév. Cl. Spegazzini ad *Hypoxylon* (cfr.) ducit, an res eædem?

DIATRYPELLA Ces. et De Not. Schema Sf. ital. p. 28. (Etym. a *Diatrype*). — Stroma a matricis substantia heterogeneum, erumpenti-subsuperficiale effusum v. disciforme. Perithecia stromate immersa collis v. ostiolis non v. vix convergentibus. Asci crassi, polyspori, stipitati. Sporidia allantoidea, minuta, hyalina v. sæpius e hyalino olivacea. — Conidia nota in nonnullis (*Libertella*).

1, **Diatrypella verruciformis** (Ehrh.) Nits. Pyr. Germ. p. 76, *Sph.* 743

verrucæformis Ehrh., *Sph. Avellanæ* Pers. — Stromate perithecigero per peridermium arctissime adhærens varieque laceratum erumpente, plus minus irregulari, verruciformi, grandiusculo, crasso, fusco-atro vel atro-ferrugineo, dein atro intus albido, discreto, connato vel in crustam inæqualem, rugosam, crassam confluente, 1–6 mill. latit.; peritheciis 6–50 in quovis stromate, distichis vel monostichis dense stipatis, ovoideis vel subsphæroideis, fuligineis, ostiolis prominulis vel latentibus, obtuse conicis, integris vel subradiato-stellatis; ascis cylindraceo-clavatis, longe pedicellatis, 100–120 ≃ 10–15 p. sporif.; sporidiis curvulis vel subrectis, dilute fuscescentibus, 5–8 ≃ 1–2.

Hab. in ramis crassioribus Coryli, Alni, Carpini, Cratægi, Fagi, Betulæ, Salicum, Frangulæ, Aceris, Fici, Mori, in tota Europa, Amer. bor., Amer. austr. — Var. *Spegazziniana* Sacc. Myc. Ven. n. 771. — Acervulis sæpius longitudinaliter seriatis; ascis clavatis, deorsum maxime attenuatis, 80 ≃ 14 parte sporif., apice obtusiusculo, myriosporis; sporidiis botuliformibus, minutis, 6 ≃ 1, curvulis ex olivaceo hyalinis. — In culmo putri Arundinis Donacis, Conegliano, Ital. bor. Junio 1876 (Spegazzini).

2. **Diatrypella favacea** (Fr.) Ces. et De Not. Schem. Sfer. p. 28, Nits. 744
Pyr. Germ. p. 77, *Sph. favacea* Fr. *Sph. grossa* et *variolosa* Pers. *Sph. betulina* Chev. — Stromate transversim erumpente, peridermio sæpissime valvatim fisso arcte cincto, vertice nudo, planiusculo, ellipsoideo, rarissime suborbiculari, primo albido, demum atro, intus albido, ruguloso, discreto, rarius connato, 3–6 mill. longit., 2–4 mill. latit.; peritheciis 6–30 in quovis stromate, ovoideis, obovoideis vel oblongatis, e mutua pressione variis, mono- vel distichis, ostiolis parum vel vix prominulis, leviter sexsulcatis, stellæformibus, aterrimis, majusculis; ascis clavatis, longissime pedicellatis, 60–80 ≃ 9–12, p. sporif.; sporidiis curvulis, dilute fuscescentibus, 6–8 ≃ 1,5. — Stromata conidifera obtuse conica, aurata, sulcis varie exarata, perithecigeris juvenilibus plerumque imposita; conidiis exilissime cylindricis curvatis, filiformibus, 40 μ. longis.

Hab. in ramis et truncis Betulæ albæ in tota fere Europa. — Var. *Coryli* Sacc. Myc. Ven. Spec. t. XV, f. 33–36. Acervuli majusculi, 3–5 mill. lati, tumiduli, disco verruculoso sed levigato; perithecia grandiuscula, ¾–1 mill. diam., in quoque acervulo parum numerosa, sæpe monosticha; asci clavati longissime stipitati, 70 ≃ 12 pars sporif., myriospori; sporidia dense conglobata, cylin-

dracea, curvula. 7–8 ≃ 1–1½, dilute flavida, utrinque 1-guttulata. — In ramis corticatis Coryli, Treviso (Italia boreali).

3. **Diatrypella nigro-annulata** (Grev.) Nits. Pyr. Germ. p. 81, *Sphæria nigro-annulata* Grev., *Sphæria* et *Valsa angulata* Fr., *Diatrypella angulata* Ces. et De Not. — Stromate erumpente, lateribus peridermio varie lacerato, interdum substellatim fisso vestito, vertice nudato, convexo, demum nigro, verruciformi, truncato-conico, subhemisphærico, suborbiculari vel subangulato, subinde ellipsoideo, discreto vel confluente, 1,5–3 mill. latit.; perithecis mono- vel distichis, 2–25 in singulo stromate, ovoideis vel subsphæroideis, mutua pressione angulatis, ostiolis plus minus prominulis, conico-rotundatis, integris vel subradiato-stellatis, tandem sæpe cupuliformibus et pertusis; ascis anguste clavatis, longissime pedicellatis, 90–180 ≃ 9–13, p. sporif.; sporidiis nonnihil curvatis, dilute fuscescentibus, 5–8 ≃ 1,5. 745

Hab. in ramis Betulæ, Fagi, Ilicis, Cytisi Laburni, Coryli in Germania, Fennia, Belgio, America boreali, Britannia et Italia.

4. **Diatrypella circumvallata** (Nees) Fuck. Symb. Myc. App, I. 325, *Sph. angulata* β. *circumvallata* (Nees) Fr. Syst. myc. II, p. 391. — Stromatibus quam in *D. nigro-annulata* majoribus et magis depressis (usque 6 mill. lat.), circulo stromatico crassiore; disco minuto, conico; peritheciis in quoque stromate intus albo, 3–5, majusculis, ostiolis minutissimis; ascis sporidiisque ut in *D. nigro-annulata*, sporidiis vero sec. Nitschke paulo longioribus, nempe 9 μ. longis. 746

Hab. ad ramos Coryli, raro in Germania. — Stromata peridermio circum circa infosso seu vallato cincta.

5. **Diatrypella Tocciæana** De Not. Sfer. ital. p. 30. t. XXXI, *D. verruciformis* var. Auct. nonnul· — Stromate perithecigero erumpente, subhemisphærico vel obtuse conico, vertice convexiusculo fuscescente vel demum nigricante, exiguo demum denudato, cæterum peridermio vix fisso arctissime tecto, 1–2,5 mill. latit.; peritheciis submonostichis, subsphæroideis fuscescentibus, 3–8 in singulo stromate, collis brevissimis, ostiolis latentibus vel parum prominulis, rotundato-conicis, integris vel subradiato-stellatis, interdum cupuli-formibus; ascis anguste clavatis, 100–150 ≃ 12 p. sporif.; sporidiis leviter curvulis, 5–8 ≃ 1,5–2. — Stroma conidiferum forma plerumque irregulari, conico-depressum, varie sulcatum, dilute auratum, deinde nigricans; conidiis lineari-cylindricis, filiformibus, cur- 747

vatis, 28–32 μ. longis, in sterigmatibus brevissimis, parce ramosis, solitarie acrogenis.

Hab. in ramis Alni incanæ et A. glutinosæ in Britannia, Fennia, Germalia, Italia, Amer. bor. — Sec. cl. Karsten *D. favacea, verruciformis, nigro-annulata* et *Tocciæana* non satis specifice differunt. — Forte a *D. Tocciæana* non differt *D. alnifraga* Ces. Hedw 1856, p. 104, t. XIV, fig. D.

6. **Diatrypella protrusa** (Pr.) *Sphærosperma protusum* Pr. Fungi Hoyersw. n. 30. — Peritheciis globosis, magnis, cum collis ostiolatis, sublageniformibus, convergentibus, lineam nigram variam circumscribentibus, basi in stromate e matre formato, immersis, in disco albo, minuto tectum, prominulis; ascis clavatis, longis, tum apice perviis, inter paraphyses; sporidiis fusiformibus, utrinque rotundatis curvatis, minutis, albis, plurimis. 748

Hab. in cortice Alni, Hoyerswerda (Germania). — An diversa a *D. Tocciæana?*

7. **Diatrypella decorata** Nits. Pyr. Germ. p. 79, *Microstoma vulgare* Auersw. — Stromate transversim erumpente, peridermio valvatim vel varie fisso cincto, vertice nudo, planiusculo vel convexulo, ellipsoideo, subinde fere orbiculari, ex fusco sordide nigricante, intus albido, discreto, raro confluente, minuto, 2–2,5 mill. lat.; peritheciis 6–12 in singulo stromate, monostichis, ovoideis vel subsphæroideis, dense stipatis mutuaque pressione angulatis, ostiolis parum vel vix prominulis, quadrisulcatis, stelliformibus, exiguis instructis; ascis cylindraceo-clavatis, longissime pedicellatis, 40–50 ≃ 5 p. sporif.; sporidiis curvulis vel subrectis, dilute fuscescentibus, 4–6 ≃ 1. 749

Hab. in ramis corticatis putrescentibus Betulæ albæ in Germania, Gallia, Fennia. — Cum *D. verruciformi* multum commune habet; differens tamen stromatibus minoribus, mox fuscescentibus, ascis sporidiisque multo minoribus.

8. **Diatrypella exigua** Wint. Myk. Not. Hedw. 1874, p. 133. — Stromatibus minutissimis, e basi subcirculari v. elliptica verruciformibus, erumpentibus, peridermio fisso cinctis, intus pallidis; peritheciis in quoque stromate 2–10, subglobosis; collis brevibus; ostiolis papillatis, non exsertis, 4–6-sulcatis, 300 μ. diam.; ascis tereti-clavatis, longe stipitatis, totis 110–150 ≃ 12, myriosporis; sporidiis conglobatis allantoideis, curvulis, 8 ≃ 1,5, fuscidulis. 750

Hab. in ramulis Salicis, prope Halle (Germania). — *D. decoratæ* affinis, sed multo minor.

9. **Diatrypella pulvinata** Nits. Pyr. Germ. p. 72, *Sphæria* v. *Dia-* 751

trype quercina Auct. p. p. — Stromate perithecigero erumpente, primitus nonnihil conico-attenuato, mox autem irregulariter prismatico, truncato, obtusissimo, planiusculo, ex fusco nigricante, ostiolisque prominulis, minutissimis elevato-punctato, lateribus peridermio fisso, erecto arctissime cincto; perithecis in singulo stromate 15–30, monostichis v. distichis, minutis, densissime stipatis, oblongis v. ovatis, mutuaque pressione plerumque angulatis, in collum breve subito attenuatis, ostiolo obtuse conico punctiformi, subintegro, prominulo instructis; ascis anguste oblongis, longe pedicellatis, paraphysibus filiformibus, simplicibus obvallatis, myriosporis, 60–80 ≃ 8–12 p. sporf.; sporidiis conglobatis, cylindricis, leviter curvatis, immo subrectis, dilute fuscescentibus, 6–7 ≃ 1½.

Hab. in ramis Quercus, prope Œstrich, Münster et Waldheim, Germania, rara.

10. **Diatrypella intermedia** Karst. Fung. Fenn. 782, Myc. Fenn. II, p. 152. — Stromate perithecigero erumpente, laciniis peridermii stellatim fissi lateribus cincto, pulvinato, orbiculari vel angulato, disco plano-convexo, e fusco nigro, discreto, subinde connato, 2–4 mill. latit.; perithecis in quovis stromate 20–40, distichis vel monostichis, densissime stipatis, ovoideis, mutua pressione angulatis, in collum longiusculum attenuatis, ostiolis plus minus prominentibus, crassis, alte quadrisulcatis, sæpius 0,3–0,4 mill. longit.; sporidiis leniter curvulis, vel subrectis, dilute fuscescentibus, 5–7 ≃ 1–1,5. 752

Hab. in ramis Quercus exsiccatis in insula Runsala sat frequens. — Inter *D. quercinam* (Pers.) et *D. pulvinatam* Nits. fere intermedia, differens ab illa sporidiis minoribus, minus curvatis, perithecisque in stromate singulo pluribus, ab hac ostiolis majoribus, crassioribus, alte quadrisulcatis.

11. **Diatrypella aspera** (Fr.) Nits. Pyr. Germ. p. 74, Sacc. Fung. it. t. 561, *Sph. aspera* Fr. S. M. II. 354. — Stromate e basi plerumque suborbiculari prismatico v. subcylindrico, erumpente, corticem quam in affinibus altius superante, lateribus arduis peridermii erecti laciniis arctissime adhærentibus cincto haud raro confluente, intus albido, vertice nudato, mox aterrimo, planiusculo v. convexo, ostiolis crassis, rugosis, ceterum integris, conicis v. fere cylindricis longe exsertis exasperato; perithecis in singulo stromate 4–12, monostichis, circa centrale sæpe circinantibus, majusculis, subglobosis v. nonnihil compressis, in collum brevissimum, angustum subito attenuatis; ascis subcylindricis, longe pedicellatis, pa- 753

raphysibus filiformibus, simplicibus stipatis, myriosporis, 112–120 ≃ 10–12 p. sporif.; sporidiis numerosissimis, conglobatis, cylindricis, curvulis, dilute fuscescentibus, 6–7 ≃ 1½.

Hab. in ramis Fagi sylvaticæ, rarius, Quercus, Corni, Alni in Britannia, Germania, Suecia, Gallia, Italia et Amer. bor.

12. **Diatrypella sordida** (Pers.) Nits. Pyr. Germ. p. 73, *Sphæria sordida* Pers. Syn. p. 25, nec Fr. — Stromate forma eximie regulari, e basi orbiculari hemisphærico-conico v. subcylindrico, emergente ac peridermio arctissime adhærente nec fisso lateribus tecto, in disco nudato, convexiusculo, omnino lævi v. ostiolis prominulis puncticulato-exasperato sordide nigricante, intus ex cinereo fuscescente; peritheciis in singulo stromate 10–18, minutis, subglobosis, ordine inæquali denseque stipatis, in collum breve attenuatis, ostiolisque punctiformibus tri- v. quadrigonis, parum v. vix prominulis instructis; ascis anguste oblongis, longe pedicellatis, paraphysibus simplicibus, filiformibus, tenerrimis obvallatis, myriosporis, 60 ≃ 8–10 p. sporif.; sporidiis conglobatis, cylindricis, nonnihil curvatis, subhyalinis, minimis, 5–6 ≃ 1–1½. 754

Hab. in ramis Fraxini, Lipsiæ, Germania (Auerswald).

13. **Diatrypella lævigata** Fuck. Symb. Mycol. p. 232. — Stromate erumpente, pulvinato, convexo, demum sublibero, 1–2 lineas lato, ½ lineam crasso, inferiore parte epidermide laciniata cincto, nigro, nitido, intus sordido; ostiolis non prominulis, nonnisi orbiculari-umbilicatis, immersis, nudo oculo non conspicuis, peritheciis 6–10, magnis, globosis; ascis longissime stipitatis multisporis, parte sporifera oblonga, 86 ≃ 8; sporidiis cylindraceis, valde curvatis, dilute flavis, 8 ≃ 2. 755

Hab. in ramis corticatis Quercus, rarius, Dombresson (Jura), ubi legit Morthier.

14. **Diatrypella eutypoides** Niessl Not. Kr. Pyr. p. 55. — Stromatibus, tubercula formantibus, nunc suborbicularibus (in cortice) nunc ellipsoideis vel elongatis (in ligno), convexis, demum confluentibus, stipatis, gregariis vel seriatim dispositis, interdum effusis, superficialibus vel parum immersis, rugulosis, extus intusque nigris; peritheciis 2–10, mox in stromate proprio mox in ligni vel corticis parte extima, plerumque irregulariter monostiche nidulantibus denseque stipatis, globosis, majusculis 300–450 μ. diam., rostro perithecii diametrum vix æquante sæpe stromatis superficiem haud superante, crasso, ostiolo obscure sulcato vel integro; ascis anguste clavatis longe pedicellatis 130–180 ≃ 10–12 (p. sporif. 80–100 lg.); 756

sporidiis numerosis, cylindraceis, curvatis, obtusis, dilute fuscescentibus, 7–10 ≃ 1½; paraphysibus filiformibus ascos superantibus.

Hab. in ramis partim decorticatis Ulmi, Lautschitz, Moravia. — Ad *Cryptovalsas* nutat.

15. **Diatrypella minuta** Nits. Pyr. Germ. p. 75, Fuck. Symb. Mycol. p. 232. — Stromate minuto parumque extante, conico-attenuato, orbiculari v. angulato, superne truncato, plano v. convexiusculo, nigricante, intus albido, peridermio fisso, arrecto arcteque adhærente cincto; perithecciis in singulo stromate 10–12, monostichis, minutis, dense confertis, in collum breve et angustum attenuatis, ostiolis conicis, obtusis, tri- v. quadrisulcatis, prominentibus instructis; ascis oblongis v. subclavatis, angustis, longissime pedicellatis, paraphysibus simplicibus, filiformibus superatis, myriosporis, 48 ≃ 6–8 p. sporif.; sporidiis conglobatis, cylindricis, nonnihil curvatis, dilute fuscescentibus, 5–7 ≃ 1. 757

Hab. in ramis emortuis Castaneæ vescæ, Hallgarten, Nassovia (Fuckel).

16. **Diatrypella malaleuca** (Kunze) Nits. Pyr. Germ. p. 80, *Sphæria malaleuca* Kunze in Herb. — Stromate minuto, e basi suborbiculari, conico-truncato, subcylindrico, forma fere regulari v. varie angulato, peridermii laciniis stellatim fissis arctissimeque adhærentibus cincto, vertice nudato, planiusculo, albido peritheciorum ostiolis pulchre nigro-punctato, interdum confluente; perithecciis in singulo stromate plerumque 5–9, monostichis, subglobosis, majusculis, dense stipatis, collis crassis, brevibus ostiolisque stromatis superficiem vix superantibus, sulcis levibus 4–6 pulchre ac stellatim exaratis instructis; ascis lineari-oblongis, longe pedicellatis, polysporis, paraphysibus filiformibus, simplicibus, tenuissimis, eseptatis stipatis, membrana apicem versus paullo incrassata textis, 50–60 ≃ 7–8 p. sporif.; sporidiis conglobatis, lineari-cylindricis, curvulis, pallide fuscescentibus, 6–8 ≃ 1. 758

Hab. in ramis crassioribus corticatis Fagi in Lusatia (Schmidt).

17. **Diatrypella quercina** (Pers.) Nits. Pyr. Germ. p. 71, *Sphæria quercina* Pers., *D. Rousselii* De Not. Sfer. ital. t. 32. — Stromate erumpente, lateribus laciniis peridermii stellatim fissi cincto, pulvinato, subregulari, orbiculari vel angulato, ruguloso, crasso, disco plano-convexo, demum nigro, ut plurimum discreto, 2–4 mill. lat.; perithecciis in quovis stromate 2–15, distichis vel monostichis, dense stipatis, ovoideis, mutua pressione angulatis, in collum longiusculum attenuatis, ostiolis plus minus exstantibus, crassis, alte 759

quadrisulcatis; ascis fusoideis, longissime pedicellatis, 80–120 ≃ 10–12 p. sporif.; sporidiis valde curvatis, dilute fuscescentibus, 8–12 ≃ 2–3; paraphysibus parce articulatis, gracilibus. — Stromata conidifera obtuse conica, sulcata, perithecigeris haud raro superposita, conidiis auratis, innumeris, filiformi-cylindricis, tenuissimis, naxime curvatis obruta.

Hab. in ramis corticatis Quercus in tota Europa et Amer. boreali.

18. **Diatrypella opaca** Cooke Fungi of Texas 143. — Erumpens, sub- 760
orbicularis, atro-brunnea; ostiolis depressis, sulcatis, vix distinctis; ascis clavatis, longe stipitatis; sporidiis leniter curvulis, numerosissimis, subluteolis.

Hab. in ramis Ilicis opacæ, Texas, Florida, Amer. bor. — Nonnullis notis cum *D. quercina* convenit, sed minor, nitidior, etc.

19. **Diatrypella discoidea** Cooke et Peck. 28 Rep. on St. Mus., Myc. 761
univ. n. 864. — Stromate suborbiculari vel elliptico, transverse erumpente, peridermio rupto arcte cincto, vertice nudato, e griseo nigricante; ostiolis parvis, vix exsertis, quadrisulcatis vel fere lævibus; peritheciis 6–12, ovatis; ascis parvis, anguste clavatis, longissime pedicellatis, polysporis; sporidiis cylindricis, rectis curvisve; paraphysibus filiformibus.

Hab. in Amer. septentr., Albany, New-York, in cortice emortuo Betulæ populifoliæ, Majo (Ch. H. Peck.). — Affinis *D. quercinæ*. Adest forma stromate minuto, angusto, aliaque stromate latiore et suborbiculari. — Var. *Alni* Rav. Fung. Amer. n. 188. In ramis Alni serrulatæ, in Carolina infer.

20. **Diatrypella olivacea** C. et E. New Jersey Fungi in Grevill. VI. 762
p. 9. — Erumpens, convexa, primum olivacea, demum atra; peritheciis magnis, paucis; ostiolis obtusis; ascis clavatis, subsessilibus; sporidiis numerosis, flavis, linearibus, obtusis, leniter curvulis 10–12 μ. long.

Hab. in ramis Nyssæ, New Jersey, Amer. bor. — Habitus *D. quercinæ* sed initio olivacea, dein atra, levior.

21. **Diatrypella irregularis** C. et E. New Jersey Fungi in Grev. VI. 763
p. 92. — Erumpens, angulata, convexa, nigrescens, intus subconcolor, ostiolis prominulis, sulcatis; ascis clavatis, longe stipitatis; sporidiis numerosissimis, allantoideis, flaveolis, 8 μ. longis.

Hab. in ramis Pyri communis, New Jersey, Amer. bor. — Affinis *D. quercinæ* sed stromata magis angulosa ostiolaque minus distincta.

22. **Diatrypella subfulva** (B. et C.) Sacc. *Diatrype subfulva* B. et C. 764
Not. North Amer. Fungi n. 856. — Pustulis parvis apice fulvo-pulverulentis; ostiolis nigris pertusis, demum emergentibus; ascis clavatis, longe stipitatis; sporidiis allantoideis plurimis, 10 μ. long.

Hab. in ramis Nyssæ, in Carolina inf., Amer. boreali.

23. **Diatrypella Frostii** Peck. Bot. Gaz. 1878. — Stromate verruciformi, prominulo, convexo v. hemisphærico, vix 2 mill. diam., interdum confluente, partim peridermio arcte cincto, nigro, intus virescente, maculam albam in ligno relinquente; peritheciis subglobosis, ut plurimum 10–15; ostiolis obsoletis; ascis cylindraceis, breve stipitatis, polysporis; sporidiis allantoideis, sub-olivaceis, 6–8 μ. long., curvulis. 765

Hab. in ramis emortuis Aceris, Brattleborough, Vermont (Amer. bor.) legit. C. C. Frost. — A *Dialr. verruciformi* differt stromate intus viridulo, a *D. betulina* stromate minori, verrucoso.

24. **Diatrypella betulina** (Peck.) Sacc. *Diatrype betulina* Peck 25 766
Rep. p. 101. — Stromate transverse erumpente, elliptico; prominulo, ligno insculpto, ibique areolas albas nigro-marginatas efformante, intus virente, extus nigricante, superne applanato, ostiolisque numerosis, prominulis, stellatis punctulato; peritheciis sparsis monostichis, ellipticis, nigris: ascis elongatis, polysporis; sporidiis allantoideis, luteolis, 5 μ. long.

Hab. in Amer. bor. Greig, in ramis emortuis Betulæ luteæ. — Mox dignoscitur stromate virescente.

25. **Diatrypella melasperma** (Fr.) Sacc., *Sph. melasperma* Fr. S. M. 767
II. p. 389. Sec. Curr. Linn. Trans. XXII, fig. 123, t. 47 (nec West., cfr. *Melanconis*). — Elliptica, aterrima, peritheciis erectiusculis ovatis stromate proprio pulveraceo cinctis, disco erumpente rugoso; ascis clavatis, stipitatis, polysporis; sporidiis polystichis, allantoideis, 5–7,5 μ. long., luteolis.

Hab. in cortice vetusto betulino in Suecia (Fr. Scl. Suec. n. 157). — In ætate juvenili pustulæ cortici omnino innatæ, linea fusca circumscriptæ, stromate lutescenti-pallido absque peritheciis; disco erumpente lineari jam atro; in adulta pustulæ ellipticæ, 2 lin. longæ, depressæ, cortici interiori innatæ; conceptaculum subliberum, tenue, fragile, opacum, atrum, epidermide adnatum, ut hac sublata dimidiatum persistit scutelliforme; stroma pulveraceum, ex olivaceo fuligineo-nigricans; perithecia reliquorum majora, pauca, aggregata, erectiusculo-convergentia, ovata, fragilia; discus

erumpens, ellipticus, minutus, niger, ostiolis obsolete prominulis, sparsis.

26. **Diatrypella Liriodendri** (Schw.) Sacc. *Sph. Liriodendri* Schw. 768
Syn. Car. n. 60, Curr. in Linn. Trans. XXII, t. XLVI, fig. 72. — Obovata, rugosa, nigrofusca, intus candida, peritheciis amplis monostichis, ostiolis subprominulis; ascis clavatis, breve stipitatis, polysporis; sporidiis allantoideis, luteolis, 5–6 μ. long.

Hab. gregaria in cortice Liriodendri Tulpiferæ in Carolina, Amer. bor. — Erumpens, prominens, subconfluens, 2–3 lin. longa et lata, cortici usque ad basim nigrescenti insidet et junior ab eodem circumdatur; superficies pulverulenta, ostiolis indistinctis variolosa; sed in nostro specimine valde adulto nuda, atra, ostiolis prominulis, intus nigrescens; perithecia 3–6, subglobosa, collo brevi. Fr. S. M. III. 356. — Peraffinis *D. asperæ*, sec. Curr. l. c.

27. **Diatrypella Caphalanthi** (Schw.) Sacc. *Sph. Cephalanthi* Schw. 769
Syn. Carol. n. 59, Fr. S. M. II, p. 356. — Subrotunda, verrucæformis, extus intusque atra, basi circumscripta, stromate obliterato ostiolis crassis crenatis confluentibus; ascis clavatis polysporis; sporidiis allantoideis.

Hab. in ramis Cephalanthi occidentalis emortuis, Carolina, Buffalo, Alabama (Amer. bor.). — Sec. exempl. a cl. Farlow accepta sporidia 8–10 $\simeq$ 1,5, subhyalina, sed plantæ habitus vix *Diatrypellæ*, potius vero *Cryptovalsæ*. — Minor, gregaria, lineam lata, confluens, per epidermidem stellatim v. radiatim ruptam erumpens, prominens, rimas corticis infestans; perithecia aggregata, conica, cortice tenui tecta. Fr. l. c.

28. **Diatrypella melæna** Nits. Pyr. Germ. p. 78. — Stromate plerum- 770
que majusculo, crasso, e basi ovali per peridermii rimas transversim directas erumpente alteque protuberante, elliptico vel forma plus minus irregulari, verruciformi v. confluendo deformi, verticem versus vix v. omnino non attenuato, lateribus arduis peridermii laciniis fissis arrectisque vestito, mox aterrimo, disco nudato, planiusculo v. convexo ostiolis crassis, conicis, leviter striatis, exsertis exasperato, ceterum lævisculo; peritheciis in singulo stromate 3–20, ovato-subglobosis, monostichis, magnis, collo brevi, crasso instructis; ascis cylindrico-clavatis, longissime pedicellatis, paraphysibus filiformibus simplicibusque stipatis, myriosporis, 120 $\simeq$ 18 p. sporif.; sporidiis numerosissimis, conglobatis, cylindricis, curvulis, fuscescentibus, 6–7 $\simeq$ 1½.

Hab. in ramis Betulæ albæ prope Driesen, Germania.

REPERTORIUM

SPHÆRIACEARUM ALLANTOSPORARUM

SECUNDUM MATRICES *)

Obs. C. indicat *Cœlosphœriam.* — Ca. *Calosphœriam.* — Co. *Coronophoram.* — Cl. *Cryptosphœrellam.* — Cr. *Cryptosphœriam.* — Cv. *Cryptovalsam.* — D. *Diatrypem.* — Dl. *Diatrypellam.* — E. *Enchnoam.* — En. *Endoxylam.* — Et. *Eutypam.* — Eu. *Eutypellam.* — F. *Fracchiœam.* — M. *Massalongiellam.* — P. *Pleurostoma.* — Q. *Quaternariam.* — V. *Valsam.* — Vl. *Valsellam.*

Abies — C. 378. — Co. 416. 417. — V. 436. 437. 458. 516. 538. — Eu. 570. — En. 674.

Acacia — V. 481. — Vl. 615. — Cr. 681.

Acer — C. 377. — F. 384. — Ca. 392. — Q. 425. — V. 429. 454. 502. 512. 525. — Eu. 578. 594. 596. 597. — Et. 618. 622. 623. 632. 637. 638. 640. 643. 657. — Eu. 690. — D. 703. 707. 711. 725. 731. 734. — Dl. 743. 765.

Æsculus — F. 384.

Ailanthus — V. 494. — Eu. 576. 577. — Et. 657.

Alnus — E. 376. — F. 384. — Ca. 393. 399. 401. 403. 405. — Co. 418. 420. — Q. 425. 428. — V. 429. 431. 457. 459. 463. 505. 506. 207. 508. 512. 542. — Eu. 573. 574. — Vl. 603. — Et. 657. — Cr. 677. — D. 703. — Dl. 743. 747. 748. 753. 761.

Amorpha — Q. 426.

Anagyris — Eu. 588.

Andromeda — Ca. 398. — V. 487. 489. — Cr. 685.

Anthyllis — Et. 629.

Arbutus — Et. 648. — D. 738.

Arundo — Et. 633. 637. 658. — Cv. 698. — D. 720. — Dl. 743.

Atriplex — V. 464.

Atropa — Eu. 582.

Azalea — V. 503.

Bauhinia — Et. 657.

Benzoin — D. 711.

Berchemia — Eu. 586.

Betula — E. 374. — C. 379. — Ca. 392. 393. 403. 404. 407. — Co. 413.

*) Ad *Eutypam lejoplacam*, n. 638, pag. 160, sequentia typotheta omisit:
Hab. in ramis decorticatis Aceris campestris, Hederæ, Fraxini, Pyri in Suecia, Britannia, Gallia, Germania, Italia, Belgio et Amer. bor. — *Sph. immersa* Sow. Fr. S. M. II. 358, in ramis Coryli, vix v. non differt.

— V. 455. 485. 518. 519. 531. — Eu. 572. — Vl. 616. — D. 705. 710. — Dl. 743. 744. 745. 749. 761. 766. 767. 770.
Broussonetia — Et. 657.
Buxus — F. 384.

Calycotome — Et. 629.
Carpinus — C. 377. — F. 388. — Ca. 402. — Q. 425. — V. 429. 474. 476. 512. — Eu. 564. 585. — Et. 618. 637. 643. 657. — Cv. 692. 700. — D. 705. 730. — Dl. 743.
Cassines — D. 721.
Cassinopsis — E. 717.
Carya — V. 491. 550. 552. — D. 716.
Castanea — Ca. 394. 406. — Q. 425. — V. 429. 433. 512. — Eu. 579. — D. 705. — Dl. 757.
Celastrus — V. 527.
Celtis — Eu. 599. — Et. 656. 657.
Cephalanthus — Dl. 769.
Cirsium — V. 483.
Citrus — Cv. 701. — D. 713.
Clematis — Et. 657.
Clethra — V. 520.
Comptonia — V. 491.
Cornus — C. 379. — F. 388. — Ca. 409. — V. 433. 472. 556. — Vl. 604. Et. 637. 641. 652. — Cv. 692. — Dl. 653.
Coronilla — Et. 657.
Corylus — C. 378. — Ca. 396. — V. 429. 440. 441. 445. 552. — Et. 637. 638. 640. — Cv. 698. — D. 704. 705. Dl. 743. 744. 745. 746.
Cratægus — Ca. 392. — V. 429. 433. 456. 500. 512. 537. — Eu. 563. 593. — Et. 637. — Cv. 692. — D. 705. 706. — Dl. 743.
Cydonia — Vl. 605.
Cytisus — Co. 414. — Dl. 745.

Daucus — Et. 637.
Dipteryx — D. 723.

Erythrina — F. 385.
Eucalyptus — F. 384. — Ca. 408. — V. 497. — D. 732.
Evonymus — V. 452. — Et. 657. — Cr. 679. — Cv. 702.

Fagus — C. 378. — Ca. 395. 409. 410. — Co. 414. — Q. 425. — V. 476. 523. 634. 541. — Eu. 570. — Vl. 602. — Et. 618. 621. 622. 635. 637. 643. 649. — Cr. 678. — D. 703. 705. Dl. 743. 745. 753.
Ferula — Et. 637.
Ficus — V. 432. — Et. 636. 637. 660. Cv. 698. 702. — D. 733. — Dl. 743.
Fraxinus — C. 377. — V. 429. — Eu. 571. 584. — Et. 648. 638. — Cr. 675. 680. — D. 714. — Dl. 754.

Genista — Et. 629. 630.
Gleditschia — C. 377.
Gossypium — V. 496.

Hamamelis — D. 707.
Hedera — Et. 638. 657.
Hibiscus — Et. 657.
Hippophaë — V. 542.

Iasminum — Co. 422.
Ilex — V. 470. 543. — Dl. 745. 760.
Iuglans — Co. 414. — Eu. 583. — Et. 632. — D. 708.
Iuniperus — V. 434. 475. 488. — D. 712.
Iussieua — M. 371.

Larix — V. 512.
Laurus — V. 528. 531. — Eu. 569. — Et. 657. — D. 722.
Ligustrum — V. 517.
Lindera — V. 554.
Liquidambar — C. 383. — V. 477. 514. — Eu. 571. — Et. 635.
Liriodendron — D. 726. — Dl. 768.
Lonicera — F. 384. — V. 521. — Vl. 613. — Et. 620.

Maclura — V. 501. 530.

Magnolia — Eu. 591. — D. 703. 731.
Massaria — V. 484.
Melia — Eu. 601. — Et. 657.
Mespilus — D. 705.
Mimulus — D. 738.
Morus — V. 429. — Eu. 571. — Et. 640. 657. — Cv. 692. 697. 698. — — Dl. 743. — D. 735.
Myrica — F. 387. — Eu. 590.

Nyssa — V. 462. 482. — Dl. 762. 764.

Olea — V. 439. 549.
Ostrya — V. 463.

Paliurus — F. 384.
Palmaceæ — Et. 671.
Persea — D. 729.
Persica — V. 429. — Eu. 566,
Photinia — V. 429.
Pinus — V. 443. 466. 516. 539. 540. 562. — ~~Et. 539.~~ — En. 672.
Pistacia — V. 566. — Et. 637.
Platanus — V. 514. 533. — Eu. 592. 593. — Et. 626. — D. 741.
Populus — C. 379. — Ca. 412. — V. 461. 500. 512. 513. 519. 533. — Eu. 578. — Et. 618. 643. 650. — Cr. 676. 682. — D. 703.
Prunus — C. 377. 379. — Ca. 391. 409. 411. — Co. 413. 414. — V. 429. 438. 499. 512. 532. 537. 545. 546. 547. 561. — Eu. 565. 566. 595. — Et. 618. 625. 627. 630. 637. 643. 657. Cr. 676. — Cv. 693. — D. 703. 705. 709.
Punica — V. 509. — Et. 661.
Pyrus — C. 380. — V. 479. 510. 512. 534. — Vl. 611. 617. — Et. 637. 638. — D. 705. — Dl. 763.

Quercus — E. 372. — C. 379. 382. — P. 390. — Ca. 397. — Co. 415. 419. 423. — Q. 427. — V. 431. 444. 460. 465. 469. 471. 472. 480. 490. 492. 512. — Eu. 478. 581. — Et. 635. 639. 640. 643. 649. 654. 665. 667. — Eu. 674. — D. 703. 705. 714. 731. — Dl. 751. 752. 753. 755. 759.

Rhamnus — V. 467. 534. — En. 580. — Et. 637. 643. — D. 705. — Dl. 743.
Rhipogonum — D. 740.
Rhododendron — V. 490.
Rhus — V. 429. 493. — Et. 657.
Ribes — V. 453. — Eu. 575. — Et. 643.
Ricinus — Et. 637. — D. 727.
Robinia — C. 377. — V. 486. 504. — Et. 657. — Cv. 698.
Rosa — Co. 421. — V. 433. 522. 529. Vl. 610. — Et. 643. 652. — Cr. 684. 686. — Cv. 694. — D. 705. 736.
Rubus — F. 384. — V. 430. 511. 522. Vl. 614. — D. 717.

Sabal — V. 435. — C. 379. — Ca. 409. Co. 418. — Q. 426. — V. 447. 450. 514. 515.
Salix — V. 519. 527. 534. 544. 548. 551. 459. — Eu. 599. — Vl. 606. 609. 612. — Et. 623. 524. 625. 637. 641. 643. 646. 647. 657. — Cr. 677. 680. — Q. 989. — Cv. 696. — D. 803. 704. 714. — Dl. 743. 750.
Salsola — Et. 634.
Sambucus — E. 373. 375. — V. 511. Eu. 569. — Et. 619. 657.
Sarothamnus — Et. 629. 645.
Scutia — En. 600.
Smilax — Et. 651. 657. 659. — D. 739.
Sorbus — Ca. 411. — Co. 413. — V. 478. 536. 537. — Eu. 568. — Et. 620.
Spiræa — Et. 653.
Staphylea — Et. 649.
Syringa — C. 377. — V. 448.

Taxus — V. 524.
Tilia — C. 377. — Cr. 413. — Q. 426.

— V. 451. 512. — Et. 631. 657. — Cv. 695. — D. 705.
Ulex — Et. 737. 668.
Ulmus — C. 377. — Q. 426. — V. 429. 512. 526. 560. — Eu. 567. 571. 598. Et. 626. 637. — Dl. 756.

Vaccinium — V. 489.
Viburnum — C. 478. — V. 500. 414. — Vl. 606. — V. 468. 557. 558. — Et. 642. — Cr. 688. — D. 703.
Vitis — C. 378. — V. 500. 514. — Vl. 606.

Weigelia — Et. 657.
Weinmannia — F. 389.

Xanthoxylum — Eu. 571.

Sect. 2. **Phæosporæ** Sacc.

Sporidia continua ovoidea v. subnavicularia, fusca v. fuliginea.

Clavis analytica generum.

A) Simplices v. cæspitosæ.

a) Superficiales v. subsuperficiales.

1. Perithecia longe rostrata.

Ceratostoma. Perithecia carbonacea v. membranacea atra; asci ovoidei v. teretes.

2. Perithecia erostrata.

§ Perithecia submembranacea.

* Sporidia circulo mucoso v. caudâ carentia.

Chætomium. Perithecii setæ ramosæ v. uncinatæ v. spirales; asci diffluentes.

Helminthosphæria. Perithecii fungicoli sæte simplices apice conidiophoræ; asci persistentes.

** Sporidia circulo mucoso v. caudâ instructa.

(Perithecia glabra v. setulosa, plerumque fimicola; asci persistentes).

† Sporidia octona, rarius quaterna.

Sordaria. Perithecia subsparsa. Sporidia hyalino-caudata.

Hypocopra. Perithecia subsparsa. Sporidia ecaudata, hyalino-obvoluta.

Coprolepa. Perithecia dense (quasi stromate) aggregata. Sporidia hyalino-obvoluta.

†† Sporidia numerosiora.

Philocopra. Perithecia subsparsa. Sporidia sæpius caudata.

§§ Perithecia typice carbonacea.

Rosellinia. Perithecia glabra v. setulosa, ut plurimum phytogena; asci persistentes; sporidia mutica, rarius appendiculata.

§§§ Perithecia coriacea, tenacia.

Bombardia. Perithecia adscendenti-elongata; sporidia diu vermicularia hyalina, dein ovoidea, fusca, caudataque.

b) Epidermide v. peridermio tectæ.

Anthostomella. Perithecia epidermide adhærente et nigrificata tecta.

Astrocystis. Perithecia initio tecta dein cum volva stellata (epidermica?) erumpentia.

B) Stromaticæ, compositæ.

a) Stroma matrice immersum, subligneum; perithecia membranacea.

Anthostoma. Stroma effusum (eutypeum) v. limitatum, subvalseum.

b) Stroma superficiale carbonaceum v. coriaceum; perithecia carbonacea eo immersa v. extantia.

1. Stroma teres v. fruticulosum v. filiforme.

Xylaria. Stroma fruticulosum, clavatum v. filiforme; perithecia stromate lateraliter subimmersa.

Camillea. Stroma verticale teres apice truncatum; perithecia annulatim circa apicem stromatis verticaliter immersa.

2. Stroma effusum v. cupulatum, adnatum v. substipitatum.

§ Conidia in stromate juniore superficialia.

Poronia. Stroma cupuliforme, brevissime stipitatum; plerumque fimicolæ.

Ustulina. Stroma repando-pulvinatum, crassum, senio intus subcavum.

Bolinia. Stroma effusum, solidum; perithecia immersa collis longiusculis.

Hypoxylon. Stroma effusum v. subglobosum, solidum; perithecia in stromate innato-prominula, collis subnullis.

Daldinia. Stroma subglobosum, intus concentrice zonatum; perithecia stromate immersa, collis subnullis.

§§ Conidia sub strato supremo stromatis nascentia.

Nummularia. Stroma disciforme v. cupuliforme, adnatum, marginatum.

CERATOSTOMA Fr. S. Veg. Scand. p. 392, p. min. parte, Sacc. Consp. Gen. pyr. p. 7. (Etym. *ceras,* cornu et *stoma,* ostiolum). — Perithecia erumpenti-superficialia, simplicia, atra, subcarbonacea, ostiolo longo, teretiusculo instructa, glabra v. fibrillosa; asci ovoidei v. cylindracei, breve stipitati; sporidia ovoidea, ovoideo-oblonga, v. subcuboidea, fuliginea. Status conidiophorus et spermogonicus in pluribus cogniti. — A gen. hypocreaceo *Melanospora* differt præcipue contextu fusco, subcarbonaceo.

1. **Ceratostoma Notarisii** Sacc. Fungi Ven. Ser. II, p. 308, F. ital. tab. 185. *Sordaria rhynchophora* De Notaris, Nuov. Recl. in Comm. Critt. Ital. II. 480. — Peritheciis gregariis, superficialibus, globulosis, $^1/_2$ mill. diam., carbonaceis, atris, rugosis, initio ostioloque pilis remotiusculis, 150–200 ≃ 3, articulatis sæpe ramulosis fuligineis patulis vestitis, dein calvescentibus; conidiis ex hyphis oriundis ellipsoideis, 8 ≃ $6^1/_2$, guttulatis, fuscis; ostiolo filiformi usque 2 mill. longo, subtortuoso, non sulcato, nigro; ascis cylindraceo-subclavatis, apice subtruncatis, ibique crasse tunicatis, deorsum sensim oblique attenuatis, parte sporif. 35–40 ≃ 5–7, paraphysibus filiformibus parcis obvallatis, 8-sporis; sporidiis oblique monostichis v. pro parte distichis, ovoideis, continuis, $5^1/_2$ ≃ $3^1/_2$, 1–2 guttulatis, fuligineis. 771

Hab. in ligno putrido Pruni Cerasi et domesticæ in Cambiasca et Cadore (Ital. bor.) (De Not. et S. Venzo). — Nomen specificum «rhynchophora» servare non potui, quia omnia Ceratostomata rostrata sunt.

2. **Ceratostoma querceticolum** (Crouan) Sacc. *Sphæria querceticola* Crouan, Finist. p. 24. — Peritheciis sphæricis, villosulis, $^1/_5$ mill. diam., in ostiolum cylindricum æquilongum productis; ascis cylin- 772

draceis; sporidiis ovoideis majusculis, granulosis; paraphysibus filiformibus ascos dimidios æquantibus.

Hab. in ligno putri quercino, Finistère (Gallia). — Sporidiorum color l. c. non indicatur, sed species prope phæosporas locatur.

3. **Ceratostoma caminatum** (C. et E.) Sacc. *Sphæria* (Immersæ) *caminata* C. et E. New Jersey Fungi. Grev. VI, p. 94, t. 100, fig. 30. — Immersum; peritheciis subglobosis, atris, sparsis, vel subgregariis, in collum elongatum productis; ascis cylindraceis; sporidiis uniseriatis, ellipticis, brunneis, 12 ≃ 6. 773

Hab. in ligno decorticato Aceris in New Jersey Am bor. — Ostiola elongata prominent.

4. **Ceratostoma Avocetta** (C. et E.) Sacc. *Sphæria Avocetta* C. et E. New Jersey Fungi Grev. VIII, p. 15. — Sparsum, immersum, dein liberum; peritheciis atris, globosis, supra in collum longe attenuatis; ascis cylindraceis; sporidiis anguste ellipticis, brunneis, 12 ≃ 5. 774

Hab. in ligno putrescente in New Jersey, Amer. bor. — Perithecia, ligno labefacto, libera; initio ostiola tantum emergunt.

5. **Ceratostoma brevirostre** (Fr.) Sacc. *Sphæria brevirostris* Fr. S. M. II. 474. Curr. Linn. Trans. XXII, p. 322, fig. 68. — Sparsum, glaberrimum, atrum; peritheciis semiemersis, globosis, lævibus; ostiolo peritheciis duplo breviori cylindrico æquali; ascis cylindraceis, breve stipitatis, 100 ≃ 10; sporidiis monostichis ellipsoideis, 15–17 μ. long. pallide fuligineis. 775

Hab. ad ligna mollia cariosa in Suecia. — Juventute immersum, dein magis magisque emersum, subnudum, aterrimum, lævissimum, fere nitidum, fragile, mox evacuatum; ostiolum breve, cylindricum, crassiusculum, læve, rectum, subobtusum.

6. **Ceratostoma australe** Speg. Fungi Argent. Pug. IV, n. 126. — Peritheciis epidermide dealbata sæpius tectis, eaque secedente liberis, globosis, 300–450 μ. diam., glabris, atris, membranaceo-coriaceis, contextu indistincte parenchymatico, atro-fuligineo, in ostiolum carbonaceum prælongum 1000–1500 ≃ 80–100, rectum cylindraceum, apice ob sporidia conglobatim protrudentia, grumoso-capitulatum productis; ascis obovato-clavatis, v. elongato-clavulatis 40–60 ≃ 8–10, sursum obtusiusculis, deorsum indistincte sed (ut videtur) longiuscule pedicellatis, mox secedenti-liberis, octosporis, paraphysibus crassiusculis, parcis, longissimis, guttulatis, fluxilibus immixtis; sporidiis oblique monostichis, v. distichis, ellipticis, rectis v. rarius subinæquilateralibus, utrinque acutiuscule rotundatis, 9–10 ≃ 4–5, primo 1-guttulatis, dein eguttatis, fuligineis. 776

Hab. in ramulis putrescentibus racemorum fructiferorum Cocos Yatay, Parque de Palermo, Argent. (Amer. austr.). — Species pulcherrima, primo intuitu facile cum Stilbea dematiea quadam commutanda.

7. **Ceratostoma rubefaciens** (Peck) Sacc. *Sphæria rubefaciens* Peck in 28 Rep. on the St. Mus. New York. — Peritheciis minutis, sparsis, subglobosis, nigris, subliberis, in ostiolum longum subulatum abrupte desinentibus; ascis clavatis, fluxilibus; sporidiis ellipsoideis, 4–5 ≃ 3,5, coloratis. 777

Hab. in lignis decorticatis arborum frondosarum, Forestburgh, Buffalo, Amer. bor. — Perithecia ligno cruentato adnata; ostiola sporidiis dein apice obruta, *Calicium* simulant. *C. pilifero* certe affinis species.

8. **Ceratostoma Jani-collinum** Sacc. et Sp. Mich. II, 246, F. ital. t. 184. — Peritheciis superficialibus, gregariis, globulosis, atris, basi hyphis hyalinis cinctis, in rostrum cylindraceum, 300–350 ≃ 30, apice longe et hyalino-penicillatum productis; contextu perithecii parenchymatico, rostri prosenchymatico rufo-fuligineo; ascis obovatis, 55 ≃ 35, subsessilibus; sporidiis e globoso cuboideis 7–8 diam., fuligineis. 778

Hab. in caule putri Rubi fruticosi a Conegliano, (Collis Jani), Ital. bor. raro (Spegazzini).

9. **Ceratostoma graphioides** Sacc. M. V. Cent. XIII, n. 1264, Mich. II, 246, F. ital. t. 183. — Peritheciis superficialibus, hinc inde dense aggregatis, maculasque atras velutinas sistentibus, globosis, in rostrum cylindraceum, 250–300 ≃ 30, apice fimbriatum productis, basi hyphulis cinctis; perithecii contextu distincte parenchymatico, tenui, melleo-fuligineo; ascis ovoideis, 20 ≃ 15, sessilibus, mox evanidis, aparaphysatis, 8sporis; sporidiis conglobatis sphæroideo-ellipticis, utrinque subtruncatis, 5–5½ ≃ 3½–4½, cinereo-fuligineis, nucleato-farctis, non guttulatis, denique protrusis et perithecia conspergentibus. 779

Hab. in ligno putrescente Juglandis regiæ, Padova, Ital. borealis (Bizzozero).

10. **Ceratostoma caulincolum** Fuck. Symb. mycol. p. 130. — Peritheciis immersis, globosis, aterrimis, magnitudine eorum *Pleosporæ herbarum*, ostiolis concoloribus, exertis, strictis, longissimis, apice albo-fimbriatis; ascis 8sporis, mox evanescentibus; sporidiis ovatis, atris, minutis, sæpe in ostiolorum apicibus ut globulo aterrimo expulsis. 780

Hab. in caulibus exsiccatis Tanaceti vulgaris, rarius, vere, circa Œstrich, Rhenogovia,

11. **Ceratostoma culmicolum** Sacc. Fungi Ven. Ser. V, 175. F. ital. t. 186. — Peritheciis emergentibus $^1/_5$ mill. diam., ostiolis $^3/_4$ mill. long., apice non v. obsolete fimbriatis; ascis ovoideis, sessilibus, 20 ≃ 15, aparaphisatis, muco obvolutis, 8sporis; sporidiis subdistichis, cuboideis, angulis obtusatis, 4–4$^1/_2$ diam., minute guttulatis, brunneis. 781

Hab. in culmis putrescentibus Andropogonis Ischæmi, Patavii, Ital. bor. (G. Bizzozero). — A *Cerat. caulicolo* f. *Echii* a cl. Wintero benevole communicato vix differt sporidiis distinctius cuboideis, neque cuboideo-oblongis, 5–5$^1/_2$ ≃ 4.

12. **Ceratostoma Therryanum** R. et S. Rev. Mycol. 1880, pag. 188, Mich. II. 315. — Peritheciis superficialibus sparsis v. subgregariis, globoso-conicis, $^1/_3$–$^1/_2$ mill. diam., atris, subcoriaceis, in ostiolum filiforme subæquilongum productis; contextu distincte parenchymatico, rufo-ochraceo; ascis.....; sporidiis ellipsoideis utrinque obtuse rotundatis, 15 ≃ 7–8, fuligineis. 782

Hab. in cortice Platani orientalis, socio *Nematogonio aurantiaco*, Lyon (Gallia) legit Therry.

13. **Ceratostoma Venetum** Speg. Mich. I, 455, F. ital. t. 628. — Peritheciis sub-carbonaceis majusculis, $^1/_4$/–$^1/_3$-mill. diam. sparsis, superficialibus, subglobosis in ostiolum crassum fragile apicem versus molliusculum, desinentibus, contextu peritheciorum parenchymatico-celluloso, ostioli autem prosenchymatico-fibroso; ascis (cito diffluentibus).....; sporidiis subnavicularibus, inferne inæquilateraliter sub-mucronatis, fuliginis, opacis, 6–9 ≃ 5. 783

Hab. ad putamina Coryli Avellanæ putrescentia, Conegliano (Italia bor.), rarissime.

14. **Ceratostoma Vitis** Fuck. Symb. Myc. p. 129. — Peritheciis gregariis, in corticis fissuris nidulantibus, globosis, media magnitudine, nigris, extus pilosis, pilis pallidioribus, rostro longissimo, perithecio sexies longioribus, strictis, nigris; ascis nondum inventis; sporidiis ovatis, continuis, fuscis, 6 ≃ 4, uniguttulatis. 784

Hab. in rimis corticalibus radicum Vitis viniferæ, rarius, circa Œstrich (Rhenogovia).

Species incertæ.

15. **Ceratostoma fallax** C. et Sacc. New Jersey Fungi Grev. VII. p. 8. — Peritheciis superficialibus, laxe gregariis, globoso-depressis, $^1/_4$ 785

mill. diam., in ostiolum filiforme subflexuosum, usque 1 mill. long. productis; perithecii contextu parenchymatico dilute fuligineo ostioli contextu lineari-prosenchymatico, aterrimo; conidii (?) perithecium conspergentibus globoso-angulosis, 15–25 μ. diam., aterrimis, quandoque hyalino-punctatis; spermatiis intra perithecium orientibus, minimis, oblongis, 4 ≃ 1–1,5 copiosissimis hyalinis, sæpe in glomerulum subglobosum, pluribus coalitis; ascosporis (?).

Hab. in ligno pineo in New Jersey, Amer. boreali.

16. **Ceratostoma piliferum** (Fr.) Fuck. Symb. myc. p. 128, *Sph. pilifera* Fr. S. M. II, 472. — Gregarium, nudum, atrum, peritheciis minimis globosis lævibus, ostiolo capillari longissimo acuminato. 786

Hab. ad ligna pinea, abiegna etc., vulgatissimum in Suecia, Germania, Britannia, Gallia, Belgio, Italia, Amer. boreali. — Admodum subtile, subinde subiculo villoso v. maculæ fuligineo-nigrescenti insidens, sed perithecia glabra. Distinguitur ostiolis longissimis tenerrimis æqualibus lævibus, nunc flexuosis, nunc striatis. — β) *Pinastri* Nees, Syst. f. 354. Emersum, nudum, ostiolo breviori stricto; spermatiis minutis, cylindraceis, copiosis. — γ) *dryinum* Pers. Syn. p. 58, t. 2. f. 6. Emergens, solitarium, ostiolo breviore flexili; «nucleo sterili. Adsunt hyphæ, quandoque in ipsis ostiolis parasiticæ, simplices, septatæ, fuscæ, conidia cylindraceo-clavulata, 14 ≃ 1½, hyalina gerentes». In ligno mucido quercino, parcius, in Suecia, Italia, Germania. — δ) *capillatum* Fr. S. M. Immersum, peritheciis ovatis, ostiolo longissimo curvato; spermatiis ovatis, hyalinis, 8 ≃ 4. In Polyporis vetustis. — ε) *tenuissimum* Fuck. Symb. myc. 119. Ascis nondum inventis; sporidiis (spermatiis?) oblongo-ovatis, continuis, hyalinis, 8 ≃ 4. In ligno Pini in Germania. — Species tota male cognita et forte plures continens. Sec. Berk. Not. North Amer. fungi, sporidia essent allantoidea 5 μ. longa; sec. Nees ovoidea v. globulosa.

17. **Ceratostoma procumbens** Fuck. Symb. myc. p. 128, t. IV, fig. 45. — Peritheciis gregariis, superficialibus, *Ceratostomatis piliferi* parum majoribus, longissime rostratis, obverse pyriformibus, plerumque procumbentibus, rostro adscendente, vel verticalibus, rostro recto, lævibus, atro-fuscis: spermatiis cylindraceis, curvatis, minutissimis, in globulum terminalem expulsis. 787

Hab. in ligno duriore Quercus, Hallgarter Wald (Rhenogovia).

18. **Ceratostoma mucronatum** (Schw.) Sacc., *Sphæria mucronata* Schw. Syn. Carol. n. 4, p. 28, Fr. S. M. II, 326. — Gregarium, atrum, peritheciis minutis nudis conicis glabris, ostiolo brevi cylindrico. 788

Hab. ad ligna in Carolina, Amer. bor. — Inter minimas, sæpe plures confluunt, sed minime conferta species est. Perithecia adulta innato-superficialia, lævia, rigida, opaca, cum ostiolo breviore recto obtusiusculo confluentia.

19. **Ceratostoma hæmatorhynchum** (Somm.) Fr. S. Veg. Scand. p. 392. 789
Sphæria hæmatorhyncha Somm. Lapp. 215, Fr. El. II. p. 96. — Gregarium, emergens, atrum; peritheciis minutis, globosis, lævibus, ostiolo longissimo inæquabili subclavato, sub apice sanguineo-pruinoso.

Hab. in ligno Salicis capreæ aëri exposito in Nordlandia, parce. — Lignum, in quo sedet, rufescit. *Sph. rostratæ* (forsan et *S. barbirostri*) proximum, attamen rostro longiore, apice incrassato pruinoso satis distinctum.

20. **Ceratostoma cuspidatum** Fr. Summa Veg. Scand. p. 392. *Sphæria cuspidata* Fr. S. M. II. p. 474. — Confertum, glabrum, atrum; peritheciis ovato-globosis rugulosis nudis, ostiolo cylindrico longitudine peritheciorum. 790

Hab. ad ligna Fagi et Carpini in Suecia et Germania. — Perithecia pauca sparsa, plurima stipata, confluentia, aterrima, opaca, primo immersa, mox nuda, magnitudine minori, intus evacuata atra. Ostiola stricta, firma (nec fragilia), obtusa, læviuscula. Magna cum *S. rostrata* affinitas.

21. **Ceratostoma Stilbum** (Schm.) Fr. Summa V. S. p. 396. *Sphæria Stilbum* Schm. Myc. Heft. I, 63, Fr. S. M. II, 472. — Gregarium, byssisedum, atrum; peritheciis globosis glabris, ostiolis elongatis apice ampliatis; sporidiorum globulo albo. 791

Hab. ad ligna pinea in Suecia et Germania. — Subiculum floccosum, atrum; perithecia pusilla, ostiolo triplo longiora, stricta, gelatina globuli instar albi erumpente coronata.

22. **Ceratostoma Spina** (Schw.) Sacc. *Sphæria Spina* Schw. Syn. Carol. n. 154, Fr. S. M. II. p. 475. — Sparsum, nigrum; peritheciis emergentibus globosis, ostiolis pyramidato-conicis obtusis nudis. 792

Hab. in cortice ramulorum juniorum Fraxini in Carolina, Am. bor. — Ex epidermide emergit sphærula, ostiolo spinæformi, crasso, pyramidato-conico, tam duro ut cultello dividi non possit; adscendit ad altitudinem duarum linearum, in tuberculo rami oriens, basi subrotunda cortici affixa. Gelatina alba, ascis flexis.

CHÆTOMIUM Kunze Myc. Heft. I. p. 15. Zopf Entwick. d. Chætom. Halle 1881, ex cl. *Chætomidio* (Etym. *chæta*, seta). — Perithecia

superficialia, carbonaceo-membranacea, subfragilia, typice pilis vestita; ostioloque breve obtuseque papillato pertuso, setis abdito instructa. Asci cito diffluentes, octospori (in *Ch. hispido* tetraspori et in *Ch. fimisedo* polyspori); sporidia continua globosa, ovoidea, typice fuliginea. — Species plures nimium conformes, pluresque heterogeneæ.

Species genuinæ.

1. **Chætomium comatum** (Tode) Fr. Syst. Myc. III. 253. *Sphæria comata* Tode, *Ch. Fieberi* Fuck. nec Corda. *Ch. elatum* Kunz. et Schm. Myk. Heft. I, p. 15, t. I, f. 3. — Peritheciis gregariis, subovoideis, tenuissimis, atris, pilis, basi radiantibus, superne, præcipue vertice, longissimis, erectis, ramosis, intricatis, badio-atris vel badiis asperulis vestitis; ascis sessilibus, v. breve stipitatis; oblongatis, utrinque obtusis, 40–48 ≃ 16; sporidiis octonis, conglobatis, ellipsoideo-sphæroideis, utrinque apiculatis, fuscis, 10–12 ≃ 8–9, lenissime compressis. — Status conidicus est *Sporodum conopleoides* (Fr.) Corda, sec. Fuck., sed Zopf non confirmat. 793

Hab. supra culmos putrescentes graminum, præprimis Secalis cerealis, nec non caules et ligna in tota Europa et America bor. — Sec. Fries *Ch. comatum* et *Ch. elatum* duas species sistunt sed discrimina ab ætate pendent. — Var. *helicotrichum* Sacc. a typo setis sursum circinatis recedit quo charactere ad *Ch. murorum* Corda vergit. In fimo vaccino in Italia (Mich. I, 222).

2. **Chætomium lageniforme** Corda Ic. fung. I, 24, t. VII, fig. 293. — Gregarium, olivaceum; perithecio medio constricto semipellucido, pilis longis rigidis ramosis, concoloribus, pulverulentis tecto, ramis patentibus subulatis, acutissimis; sporidiis numerosis primum pellucidis albis, dein olivaceis, ovatis utrinque apiculatis, mycelio spurio. 794

Hab. in charta impressa putrida Reichenberg (Germania). — Sec. Zopf est forma *Ch. comati.*

3. **Chætomium atrum** Link. Spec. I, 46, Sacc. Mich. II, p. 55. — Peritheciis dense gregaris globulosis 1 mill. diam., aterrimis, dein superne glabratis, nitidulisque, pilis longissimis maxime tortuosis subsimplicibus, 6–7 micr. cr. fuscis vestitis et circumdatis; sporidiis limoniiformibus, 12 ≃ 9–10, pluriguttulatis, violaceo-fuscis; ascis (sec. Tul.) ovato-leuceolatis, stipitatis. 795

Hab. in lignis putridis in Gallia et Germania. — Sec. Zopf Entw. Chæt. p. 83. est forma *Ch. comati,* sed mihi satis diversum videtur.

4. **Chætomium pannosum** Wallr. Fl. crypt. n. 1814, Zopf Entw. Chæt. 796

t. 4 et 5. — Peritheciis globosis majusculis fragilissimis sordide-nigris, pilis stipatis opacis rigidulis implexo-crispis undique obtextis, glebas pannosas dein confluentes stygias arcte contextas mentientibus; ascis (teste Niessl in Hedw. 1876, p. 104) oblongo-ovoideis, longissime stipitatis, 90 ≃ 15–20, octosporis; sporidiis ellipsoideis utrinque apiculatis, 10–14 ≃ 8–9, obscure olivaceis v. nigrescentibus.

Hab. ad Helianthi annui etc. caules in Germania. — *Rhacodium* s. *Sphæriam byssissedam* ejusque incunabula fere refert; habitu externo et sporidiis uberrime superfusis et ex perithecio rarius integro profusis (sub vitro) pannum pulverulentum æmulatur. — Sec. Zopf ex hujus speciei mycelio oritur substantia rufo-tingens, quæ flava est in *Ch. comato.*

5. **Chætomium indicum** Corda Icon. fung. IV, 38, t. VIII, fig. 104. 797
— Gregarium, atrum; perithecio verruciformi, atro, subacuto; setis longis ramosis, ramis ramulisque dichotomis, arcuatis, atris; ascis clavatis minutis; sporidiis ellipticis utrinque acutis, olivaceis, levibus, nucleatis, 5–6 ≃ 4–4–5, lenissime compressis.

Hab. in charta putri, India, Tenasserim, Maulmain, Burmah nec non in Gallia, Germania et Britannia, ab Indiis tamen verisimiliter allatum.

6. **Chætomium microsporum** Speg. Fung. Arg. Pug. IV. n. 113. — 798
Peritheciis laxissime gregariis v. subsparsis, globosis superne tantum penicillato-comatis, 0,3–0,5 mill. diam., saturate atro-olivaceis, membranaceis, contextu indistincte parenchymatico olivaceo; pilis rigidulis, leviusculis, flexuosis, parce septulatis, 3 μ. crass., atro-olivaceis; ascis ellipticis v. obovatis, 35–40 ≃ 8–10 p. sporif.; sursum plus minusve rotundatis deorsum longiuscule stipitatis, stip. 30–40 ≃ 3–5 aparaphysatis, octosporis; sporidiis subglobosis v. ellipticis, utrinque obtusiuscule acutatis, sæpe subinæquilateralibus 5–6,5 ≃ 4–5, olivaceo-fuligineis.

Hab. in charta diu loco udo servata in Universitate Bonaerensi (America australi).

7. **Chætomium globosum** Kunze Myc. Heft. I. 16. — Perithecio mi- 799
nuto, adnato, semigloboso, undique pilis simplicibus divergentibus obsesso; sporidiis ellipsoideis.

Hab. ad caules herbarum, v. c. Dianthi Carthusianorum in Germania etc. — Minutum, punctiforme, basi adnata, globosum, atrum, ore punctiformi dehiscens, demum in discum exiguum pal-

lidum dilatatum. Pili totam superficiem æqualiter obducunt, rigiduli, perithecii diametrum æquantes.

8. **Chætomium chartarum** Ehrenb. Sylv. 15, 27. Fr. Syst. Myc. III. 254. — Perithecio subgloboso, nigro, macula læte flava cincto, setis simplicibus 2–3 mill. cr., dilute fuligineis asperulis; ascis clavatis, longiuscule stipitatis 45–50 ≃ 14–16, stipite 25–45 ≃ 5; sporidiis limoniiformibus, 8–10 ≃ 6–8, 1-guttatis, olivaceo-fuligineis. 800

Hab. in chartа emporetica putri in Anglia, Belgio, Germania, Gallia, Italia, Amer. bor. et austr., socia sæpe *Stachybotryte lobulata.* — Teste Zopf *Ch. globosum, chartarum* et *Fieberi* sunt formæ unius speciei, quam *Ch. Kunzeanum* vocat.

9. **Chætomium Fieberi** Corda Icon. Fung. I, p. 24, f. 293, C. *Ch. Kunzeanum* Zopf. — Peritheciis subsphæroideis, siccis vertice sæpe leviter collapsis, atris, latit. circiter 180 μ., pilis prælongis ut plurimum simplicibus, rectis v. apice incurvis; ascis subsessilibus, oblongatis, 40 ≃ 16; sporidiis octonis, subsphæroideis, interdum utrinque obsolete acutis, fuscidulis, 9–11 ≃ 7–8. 801

Hab. supra chartam, in caulibus, tela putridis in Gallia, Italia, Germania, Fennia. — Adest in lignis udis Patavii var. *chlorina* Mich. I, pag. 27 in qua pili perithecii simplices recti vel apice ramosi, asperuli, successive flavi, chlorini, olivacei, atri; asci clavati stipitati! p. s. 35–40 ≃ 15, stipite 20 long., octospori; sporidia disticha, limoniiformia, 12 ≃ 8, olivaceo-fuliginea.

10. **Chætomium affine** Corda Ic. fung. IV. p. 37, t. VIII, fig. 101. — Subgregarium; peritheciis globosis, atris; pilis longis, simplicissimis subulatis, olivaceo-atris; mycelio tenui minuto; sporidiis obovatis, infra acutis, olivaceo-fuscis. 802

Hab. in foliis putridis Quercuum, Pragæ (Germania). — Vix differt a *Ch. Fieberi.*

11. **Chætomium murorum** Corda Ic. fung. II, 29, t. XIII, fig. 103. Zopf. Chæt. t. 6, f. 13–20. — Gregarium, minutum, atrum; perithecio subgloboso pilis septatis laxis flexuosis, cincto; ascis clavatis, stipitatis; sporidiis distichis ovatis utrimque acutatis, longitudinaliter subsulcatis, semipellucidis, 12–17 ≃ 8–9, leniter compressis. 803

Hab. in muris udis in Germania, Pragæ et in Britannia.

12. **Chætomium streptothrix** Quel. Champ. Jura 531, t. IV. fig. 40. — Peritheciis minutis, nigro-fuscis, setis asperulis, nigris, eximie spiraliter contortis; ascis . . . . . sporidiis limoniiformibus, brunneis, 12 μ. long. 804

Hab. agglomeratum in frustulis Solani tuberosi morbosi,

in Jura et Vogesis (Gallia). — Cl. Quelet huc citat, etsi dubitanter, veluti statum conidiophorum *Peronosporam infestantem* sed, ut liquet, ex errore.

13. **Chætomium spirale** Zopf Entwick. d. Chæt. p. 79, t. 6, fig. 21–26. 805
— Peritheciis majusculis ovoideis, v. ellipsoideis, 240–420 ≃ 220–360, ostiolo nec non setis ubique sparsis instructis; setis lateralibus subulatis, olivaceo-fuscis, sursum pallidioribus; terminalibus cylindricis, remote septatis, brunneis, levibus v. asperulis, 6 μ. crass., vicies et ultra æqualiter spiraliter convolutis, fasciculum majusculum efformantibus; ascis clavatis, breve stipitatis, 34–43 ≃ 18 (p. sporif.); sporidiis oblongo-limoniiformibus, olivaceo-brunneis, 12–15 ≃ 7–8, lenissime compressis.

Hab. in fimo equino, Berlin German., semel (Zopf). — An diversum a *Ch. streptothrice* Quel.?

14. **Chætomium bostrychodes** Zopf Entwick. d. Chæt. p. 81, t. 7, fig. 806
14–28. — Peritheciis minusculis, ellipsoideis v. fere fusoideis, 340 ≃ 220, ubique setosis, ostiolo minuto, breve papillato, subhyalino; setis lateralibus subulatis remotis, terminalibus densioribus, adscendentibus, pluries (-6-14) spiraliter convolutis, brunneis, parce asperulis; ascis clavatis, minutis, breve stipitatis, 50 ≃ 12; sporidiis ellipsoideis, utrinque obtusiusculis, 6–7 ≃ 5, lenissime compressis, olivaceo-fuscis.

Hab. in animalculis putridis, Solani tuberibus, fimo etc., non frequens, Berlin et Göttingen (Zopf).

15. **Chætomium crispatum** Fuck. Symb. Myc. pag. 90. *Sphæria crispata* Fuck. F. Rhen. 2022. — Peritheciis gregariis, globosis, media magnitudine, undique olivaceo-pilosis, pilis aliis rectis, septatis, fuscis, diaphanis, aliis crispis, contortis, opacis; ascis stipitatis, cylindraceis, 82–100 ≃ 10 (p. sporif.); paraphysibus simplicibus, elongato-clavatis; sporidiis 8, monostichis, globosis seu globoso-ovatis, utrinque apiculatis, simplicibus, hyalinis, liberatis demum fuscis, 12 ≃ 10, leniter compressis. 807

Hab. in tuberibus putridis Solani tuberosi in cellis humidis, Œstrich, Rhenogovia.

16. **Chætomium Cuniculorum** Fuck. Symb. Myc. p. 89. — Sparsum, 808
erectum, $^1/_2$ lineam altum; peritheciis ovatis, brevissime pilosis, fusco-olivaceis, vertice pilis paucis, comosis, perithecio duplo longioribus, rectis, strictis, articulatis, concoloribus; sporidiis ellipticoovatis, simplicibus, umbrinis, 12 ≃ 6–8, utrinque non v. vix apiculatis.

Hab. in stercore putri Cuniculorum, vere, Freienweinheim, Rhenogovia. — Sporidia juvenilia sæpius octono-conglobata.

17. **Chætomium orientale** Cooke, Coco Palm. Fungi, Grev. V, p. 103, 809
t. 86, fig. 5–11. — Gregarium, olivaceum; peritheciis subglobosis, strigosis; pilis tenuibus, simplicibus, flexuosis, brunneis; ascis pyriformibus, stipitatis; sporidiis globosis, utrinque leniter apiculatis, fuliginosis, 8–10 μ. diam.

Hab. in cicatricibus (unde folia ceciderunt) stipitis Cocos nuciferæ, Demerara (Guiana britannica). — Pili et perithecia minute scabra.

18. **Chætomium tomentosum** Preuss, Pilze Hoyersw. n. 147. — Gre- 810
garium atro-fuscum tomentosum; floccis radiantibus laxis, diaphanis fuscis; peritheciis subglobosis, subpubescentibus, atro-fuscis, irregulariter ruptis; sporidiis fuscis subellipticis, nucleo gelatinoso granuloso; ascis clavatis.

Hab. in lignis Quercuum, in domicilio plantarum calefacto sub testis floralibus, Hoyerswerda (Germania).

19. **Chætomium signatum** Preuss, Pilze Hoyersw. in Linnæa vol. XXIV, 811
p. 78. — Gregarium olivaceo-atrum; perithecio globoso, pilis longis septatis, lævibus, erectis, apice circinatis; sporidiis oblongis, fuscis, utrinque apicibus nigro-signatis.

Hab. in ligno Pini putrescente, Hoyerswerda (Germania).

20. **Chætomium lanosum** Peck 28 Rep. on the St. Mus. — Peritheciis 812
minutis, subglobosis, sparsis, v. aggregatis, dense villosis; pilis lanosis; obscure olivaceis v. murinis; ascis brevibus, crassis, fugacibus; sporidiis subglobosis, initio pallidis, dein fuscidulis, 7,5–8,5 μ. diam., grosse 1-nucleatis.

Hab. in gramineis in herbario male exsiccatis, Albany, Am. boreali, Majo.

21. **Chætomium sphærospermum** C. et E. Grevill. 1880, VIII, p. 16. 813
— Peritheciis superficialibus, atris, strigosis, in cæspitulos elongatos congestis, subglobosis; pilis rigidis, erectis, elongatis, tenuibus, atrobrunneis, sursum divaricato-ramosis; sporidiis globosis, brunneis, 10 μ. diam,

Hab. in disco doliorum in cellis vinariis, New-field, New Jersey (America boreali).

22. **Chætomium olivaceum** C. et E. New Jersey Fungi, Grev. 1878, 814
VI, p. 96, t. 100, fig. 38. — Viridi-flavum, vel olivaceum; peritheciis gregariis, subglobosis, pilis flexuosis simplicibus ornatis; sporidiis subglobosis, utrinque acuminatis, brunneis, 12 = 10.

Hab. in caule putri Erigerontis, New Jersey (Amer. bor).
— Setæ olivaceæ, sursum viridi-flavæ, scabriusculæ.

23. **Chætomium funicolum** Cooke, Grevill. I, pag. 176. — Peritheciis 815
sparsis subovatis, nigris; setis ad verticem prælongis, dichotomis, v. simplicibus, erectis, exilibus, acutis, nigris; sporidiis limoniiformibus, atro-brunneis.

Hab. in chorda putrescente in Britannia et in scopis in Am. bor. — Affine *Ch. comato* sed multo minus et levius. Omnino nigrum, setæ tenuiores; sporidia diametro transversali sesquilongiora.

24. **Chætomium melioloides** C. et Peck. 27 Rep. p. 106. — Sparsum 816
minutum; peritheciis brunneis, globosis, e mycelio ramoso septato oriundis, setulis atro-fuligineis, rigidulis sursum bis terve dichotome ramosis, ramis patentibus; sporidiis ovoideis vel subglobosis, pallide brunneis, 4,5 μ. diam.

Hab. in Amer. bor. North Greenbush, in culmis Maydis. — Affine *Chætomio funicolo*, sed setis ramosioribus, ramis divaricatis, sporidiis æqualibus etc. differt.

25. **Chætomium griseum** Cooke, Grevillea I, p. 175. — Subgregarium 817
v. sparsum, griseum; peritheciis globosis brunneis, submembranaceis; pilis longis, elasticis, circinatis, pellucidis, tenuiter laxeque septatis; ascis clavatis, fasciculatis; sporidiis limoniiformibus hyalinis, granulosis nucleatisve, 13–17 ≃ 6–9.

Hab. in tela corrupta King's Lynn, et charta putri Highgate (Britannia). — Pilis molliusculis, sporidiis majoribus hyalinis a *Ch. murorum* recedit.

26. **Chætomium depressum** Wallr. Fl. crypt. n. 1811. Fuck. Symb. 818
myc. pag. 90. — Perithecio depresso-globoso nonnisi ovali, a basi inde pilis brevibus rigidis nigris assurgentibus torvo, dein a vertice inde apertis discum sporophorum recludentibus; ascis .... non visis; sporidiis ovatis subellipsoideis, utrinque apiculatis, fuscis, 14 ≃ 10.

Hab. ad ramulos siccos lignaque abietina uda, minime rarum auctumno, in Thuringia et Rhenogovia. — Sec. Fuck. l. c. fungus conidiophorus est *Myxotrichum resinæ* Fr.

27. **Chætomium concinnatum** Preuss, Fungi Hoyersw, n. 146. — Gre- 819
garium minutum, atrum; perithecio globoso, pilis longis rigidis, subramosis subimpellucidis circinatis septatis tecto; ascis longis linearibus; sporidiis atro-fuscis, ellipticis, nucleatis.

Hab. in caulibus Georginarum putrescentibus in pagina interiore in hortis, Hoyerswerda (Germania).

28. **Chætomium lanatum** Quel. Champ. Jura 531, t. IV, fig. 43. — Peritheciis sphæricis, lævibus, nigris, pilis longis, lanosis, flexuosis, intertextis, tenuibus, glabris, nitidis, nigris vestitis; ascis.....; sporidiis globoso-limoniiformibus, 15 μ. long., guttulatis, fusco-olivaceis. 820

Hab. agglomeratum in ligno sub hortorum rejectamentis sepulto in Jura et Vogesis (Gallia). — *Chætomio comato* paulo minus.

Species desciscentes.

29. **Chætomium hispidum** Fr. Summa Veg. Scand. pag. 405. — Gregarium, atrum; peritheciis hemisphæricis subnitidis, setis rigidis divergentibus, sparsis; ascis amplis clavatis, pellucidis; sporidiis quaternis seriatis, continuis, lutescentibus. 821

Hab. ad caules herbarum in Scandinavia. — Interdum deficit perithecium (teste Fries). An?.

30. **Chætomium stercoreum** Speg. Mich. I, 222, Fungi ital. t. 622. — Peritheciis dense gregariis v. hinc inde sparsis, superficialibus v. subimmersis, ovoideo-pyriformibus, undique setis strigosis, ad verticem longioribus atque densioribus vestitis, perithecii contextu laxe parenchymatico fuligineo; setis basi bulboso-incrassatis, primitus ubique muriculatis dein lævibus, remote septulatis, fuligineis sursum pallidioribus; ascis oblongo-ellipsoideis, apice acutato-rotundatis, deorsum stipitato-attenuatis, p. sporif. 60–70 ≃ 16–22, stipite 40–50 ≃ 7–8, octosporis; sporidiis limoniiformibus utrinque acutiusculis, primitus 8–9 ≃ 6–7, tandem 15 ≃ 10, jugiter hyalinis, luce refracta centro dilutissime chlorino-nucleatis, lævibus. 822

Hab. in stercore canino udo, Conegliano et Vittorio (Italia) Sept. Oct. 1877. — Sporidiis jugiter hyalino-chlorinis species prædistincta et propter hoc a genere desciscens.

31. **Chætomium calvescens** Sacc. Mich. II, 123. — Peritheciis superficialibus e basi applanata globulosis, diam. $^1/_4$–$^1/_5$ mill., aterrimis, contextu distincte celluloso, fuligineo, breve sparse pilosellis; ascis..... (diffluentibus?); sporidiis ellipsoideo-limoniiformibus (h. e. utrinque breve obtuse apiculatis), 10–14 ≃ 5–5$^1/_2$, pluriguttulatis, fulvo-ferrugineis. 823

Hab. in ligno pineo putrescente, socia *Magnusia nitida*, Berolini 1869 (P. Magnus); in ligno abietino in agro Veneto (Spegazzini). — Colore et magnitudine sporidiorum facile dignoscenda species.

32. **Chætomium rufulum** B. et Br. Ann. Ann. N. Hist. n. 1397 t. X, fig. 14. — Peritheciis subglobosis, rufis, celluloso-contextis, e mycelio parce filamentoso oriundis, astomis; ascis brevibus, clavatis obtusis, subsessilibus; sporidiis octonis vage distichis, sphæricis, 10-12 μ. diam., maturis vero 16-18 μ diam. conspicue muricatis, pallide brunneis, uninucleatis. 824

Hab. in charta sub campana vitrea, Elmhurst (Britannia).

33. **Chætomium Araliæ** Corda Ic. fung. IV, p. 37, t. VIII, fig. 102. — Gregarium; peritheciis subphæricis, tenuibus, atris, pilis longis confertis subulatis, septatis atris tectis; nucleo atro; sporidiis oblongis glaucis semipellucidis (continuis); mycelio tenui adpresso atro. 825

Hab. in foliis et caulibus Araliæ arboreæ (Sprengel, sub *Amphitrichi Araliæ* nomine).

34. **Chætomium amphitrichum** Corda Ic. fung. IV, p. 37, t. VIII, fig. 103. — Gregarium, semi-immersum; peritheciis convexis, medio dein perforatis et pilis longis ramosis rectis, sursum uncinatis tectis; sporidiis conglobatis, atris, lentiformibus, depressis, rotundis, episporio crasso, nucleatis, 5-6 μ. diam. 826

Hab. in foliis emortuis plantarum in India or., Tenasserim.

35. **Chætomium fimisedum** Karst. Enum. Fung. Lapp. p. 218. — Peritheciis dispersis, globosis, exiguis, nigris, opacis, pilis erectis, divergentibus, sparsis, simplicibus, subulatis, concoloribus, longit. 60-80 μ. vestitis, ascis fasciculatis, hinc inde constrictis, cylindraceis, polysporis; sporidiis sphæroideis, incoloribus, diam. 4-6 μ. 827

Hab. ad fimum caninum prope Soukelo in Lapponia rossica. — Teste ipso auctore est species ulterius inquirenda.

36. **Chætomium Braunii** Rabh. in Bot. Zeitung 1851, p. 453. — Gregarium, seriatum, subconfluens, atrum; peritheciis subglobosis adnatis vertice umbilicatis fragilibus atris; pilis setiformibus rigidis fusco-atris septatis vestitis; nucleo atro; cellulis matricalibus (ascis) cylindrico-oblongis utrinque obtusis mox deliquescentibus hyalinis; sporidia subglobosa et granula minuta foventibus. 828

Hab. in seminibus intra samaris Fraxini excelsioris, Giessen (Germania).

Species dubiæ v. mihi parum notæ.

37. **Chætomium coccodes** Wallr. Fl. crypt. n. 1807. — Perithecio globoso sessili sparso verrucæformi atro tenerrimo, undique, pilis 829

brevibus rigidis porrectis horrido dein caduco, sporidia conglobata nuda relinquente.

Hab. ad Solani tuberosi tubera mucida hyemis tempore passim in Germania.

38. **Chætomium epiphyllum** Kunze in Wallr. Fl. crypt. n. 1804. — Perithecio conoideo sessili punctiformi sparso atro, vertice pilos concolores comosos porrectos emittente. 830

Hab. ad folia sicca præprimis radicalia pl. herbacearum, v. c. Dianthi superbi in Germania. — « An *Vermiculariæ* species? »

39. **Chætomium gelatinosum** Ehrenb. Sylv. Ber. 15, 27. — Perithecio subgloboso gelatinoso pellucido, basi pilis fibrosis insidente. 831

Hab. in caulibus putrescentibus in Germania. — Affine *Ch. comato* pro cujus statu immaturo etiamnum magis gelatinoso *Friesius* declarat.

40. **Chætomium viride** Lév. Ann. Sc. nat. 1845, pag. 65. — Gregarium; peritheciis ovatis basi coarctatis undique setis viridibus vestitis. 832

Hab. Paraguay, in graminibus dejectis.

41. **Chætomium Cumingii** Lév. Ann. Sc. nat. 1845, p. 65. — Peritheciis sparsis turbinatis, nigris, setis simplicibus; sporidiis ellipticis. 833

Hab. prope Manillam (India) in foliis delapsis. — Affine *Chætomio amphitricho* Corda, differt vero setis simplicibus; sporidiis ellipsoideis, non utrinque acutis.

42. **Chætomium pusillum** Fr. Syst. Myc. III. 255. — Perithecio adnato-globoso, pilis æqualibus brevibus erectis tecto; sporidiis globosis. 834

Hab. in foliis dejectis acerosis, vere, in Scandinavia. — In greges minutos elegantes collectum; ceterum *Chæt. globoso* valde affine, loco forsan tantum distinctum. Sporidia generis. Sec. cl. Corda Icon. II. p. 29 hæc species cum hodierna *Niesslia Chætomio* conveniret, sed hæc a diagnosi allata Friesii abhorret.

43. **Chætomium Douglasii** Schw. Syn. Am. bor. n. 2400. — Tomento olivaceo-virente non intertexto sed floccoso-fastigiato, undique sed præsertim ex peritheciorum apice nascente; peritheciis laxe tantum cauli affixis, majusculis, globoso-ovatis, fragilissimis, apice apertiusculis intus demum cavis, dense aggregatis, nigro-fuligineis, tomento concolori. 835

Hab. in caulibus Hyssopi anisati adhuc vigentis, versus radices dense investiens caules, in vicinia Lacus Huron Amer. bor. (Torrey). Fungus valde memorabilis affinis *Chætomio comato.*

44. **Chætomium Typhæ** Schw. Syn. Amer. bor. n. 2401. — Minutis- 836

simum, atrum, punctiforme; pilis tam brevibus involutum, ut vix discernantur nisi lente augentiori; situm inter nervos folii.

Hab. non rarum in folii typhinis, Bethlehem Am. bor.

HELMINTHOSPHÆRIA Fuck. Symb. myc. p. 166 (Etym. a setulis *Helminthosporium* æmulantibus). — Perithecia tomento denso insidentia, demum libera, globosa ovatave, minutissime papillata, tota pilis fuscis tecta, apice conidiiferis. Conidia oblonga, utrinque obtusissima, didyma, subopaco-fusca. Sporidia in asco stipitato, cylindraceo, oblique monosticha, oblongo-lanceolata, 2guttulata, simplicia, fusca. Pycnidia ascophoris minora. Stylosporæ ovoideæ, fuligineæ 4-5-guttulatæ, 16 ≃ 8.

1. **Helminthosphæria Clavariarum** (Desm.) Fuck. Symb. mycol. p. 166. 837
Sacc. Myc. Ven. Spec. tab. XI, f. 43-44, *Peziza* (Lachnea) *Clavariarum* Desm. Not. Crypt, 1837, p. 4, t. 2, f. 1. Gill. Discom. Franc. p. 81 cum icone. *Sordaria Clavariæ* Ces. et De Not. — Peritheciis gregariis, globosis, dein pezizoideo-cupulatis pilis conidiophoris, obsitis, conidiis didymis, oblongis, 15-20 ≃ 8, loculis sæpe inæqualibus, guttulatis, fuligineis; ascis cylindricis, subsessilibus, 60 ≃ 5½, paraphysibus linearibus brevibus, parcis, obvallatis, 8sporis; sporidiis oblique monostichis, ovatis subfusoideis, 11 ≃ 5½, fuligineis, continuis, guttulatis.

Hab. in trunco Clavariæ cristatæ et griseæ languidæ in Germania, Gallia, Italia.

SORDARIA Ces. et De Not. Schem. Sfer. 51, pr. p. Fuck. Symb. Myc. p. 244 (Etym. a *sorde*, quia in sordidis nascitur et sordem refert). — Perithecia sparsa v. conferta v. in stromate spurio, crustaceo semiimmersa, globosa, conica v. pyriformia pilis vestita v. glabra ostiolo obtuso-conico, atro. Asci stipitati, 8spori. Sporidia, ellipsoidea, fuliginea basi v. utrinque hyalino-appendiculata. — Conidia et spermatia in nonnullis speciebus nota.

I. *Eusordaria:* ascis octosporis.

Fimicolæ.

1. **Sordaria coprophila** (Fr.) Ces. et De Not. Schem. Sfer. p. 52. Sf. 838
ital. t. XX, Wint. Sord. p. 26, t. IX, fig. 14, *Sphæria coprophila* Fr. S. M. II. pag. 342, *Cercophora mirabilis* Fuck. Symb. myc. p. 245 (stat. immaturus). — Peritheciis confertis subconfluentibus, primum plus minus immersis tomentoque tenui albido tectis, deinde

plus minus emergentibus nudatisque, ovoideo-sphæroideis vel sphæroideis, sordide atris, ostiolo obtuse conoideo, nigro; ascis pedicellatis, cylindraceo-subclavatis, 130 ≃ 21; sporidiis octonis, subdistichis, ellipsoideis, fuscis, opacis, polo inferiori appendicula sporidio duplo longiori, hyalina instructis, sine appendicula 17–26 ≃ 8–10; paraphysibus nullis.

Hab. in fimo vaccino, leporino, asinino in tota Europa et Amer. bor. — Sec. Fuck. in peritheciis juvenilibus adsunt spermatia allantoidea, perexigua.

2. **Sordaria natalitia** (Speg.) Sacc. *Hypocopra natalitia* Speg. Fungi Arg. Pug. II, n. 58. — Peritheciis densissime gregariis, globoso-lenticularibus, in ostiolo acutiusculo cylindraceo-conico attenuatis, minutis, $^1/_3$–$^1/_4$ mill., matrici insculptis, vel superficialibus, contextu tenui-membranaceo, parenchymatico, fuligineo-atro, basi hyphis radicantibus exilibus vestitis; ascis cylindraceo-clavatis superne obtuse rotundatis, quandoque subtruncatis, deorsum in pedicellum longiusculum attenuatis, 200–210 ≃ 12–14, octosporis; sporidiis distichis, primo hyalinis, cylindraceis, continuis, utrinque rotundatis, 45–50 ≃ 6–7, granuloso-farctis, dein apice elliptico-capitatis, vertice acutiuscule rotundatis, fuligineis, 15–16 ≃ 10, jodi ope nucleo obscuriore hyalino-ocellato ornatis, cauda hyalina recta cylindracea, 30–35 ≃ 6–6$^1/_2$, donatis. 839

Hab. in trunco putri aqua semmiimmerso Pircuniæ dioicæ secus Rio de la Plata, cercá de la Recoleta, America austr. — Species *S. coprophilæ* sat similis, sed sporidiorum magnitudine recedens.

3. **Sordaria minuta** Fuck. Symb. myc. App. II, p. 44, Wint. Sord. p. 37, t. XI, fig. 21. — Peritheciis sparsis exacte conicis v. elongato-ovatis, 400 ≃ 220, antice brevissime setulosis; ascis cylindraceis, substipitatis, 8sporis, 112 ≃ 14; sporidiis oblique monostichis, elliptico-ovatis, nucleatis, demum atro-umbrino-opacis, vertice globulo oblongo, gelatinoso, hyalino, mox deciduo, basi stipite recto, hyalino, sporidiorum dimidium æquante, 16–22 ≃ 10. 840

Hab. in fimo equino, vulpino, cuniculorum, murino, ovino in Germania, Britannia. — Datur forma 4–6-spora (*S. tetraspora* Wint.).

4. **Sordaria communis** (Speg.) Sacc. *Hypocopra communis* Speg. Pug. 2. p. 20. — Peritheciis sparsis v. hinc inde 5–8 gregariis, globoso-lenticularibus, glabris, olivaceo-atris, fimo immersis, ostiolo tereti-conoideo, longiusculo, extante; ascis clavatis, apice truncato- 841

rotundatis, longiuscule stipitatis, 200–220 ≃ 30–35, paraphysatis, octosporis; sporidiis distichis, ellipsoideis, hyalinis, dein fuligineis, 27–32 ≃ 18–20, apice caudâ hyalina contorta, mox fluxâ, basi appendice tereti, recta, hyalina, persistente, 20–30 ≃ 4–8, auctis.

Hab. in fimo vaccino putri secus Rio de la Plata, Amer. austr. — Affinis *S. decipienti.* Sporidia caudaque infera initio simulate 1–3-septata.

5. **Sordaria neglecta** E. et C. Hans. Champ. sterc. Dan. p. 22, t. IX, fig. 12–18. — Peritheciis brevibus, pyriformibus, 1–1½ mill. altis, gregariis, subimmersis, virescenti-nigris, ostiolo brevi papillato, nigro; ascis stipitatis, fusoideis, apice rotundatis, octosporis, 150–170 ≃ 48–60; sporidiis ovoideis 42–57 ≃ 30–37, fuligineis, utrinque appendice hyalina sporidium subæquante auctis. 842

Hab. in fimo vaccino vetusto, Ribe (Dania). — Adest forma minor in fimo equino, sporidiis 32–40 ≃ 18–21. Prope Holte in Selandia Daniæ.

6. **Sordaria hirta** E. C. Hans, Champ. sterc. Dan. p. 22, t. VII. fig. 17–24. — Peritheciis sparsis, subimmersis oblongo-pyriformibus, 1–1½ mill. altis, nigro-olivaceis, ostiolo conico nigro, subinde longiusculo, pilis septatis brevibus obducto; ascis longe stipitatis, clavato-fusoideis, apice rotundatis; sporidiis octonis (raro quaternis) ovoideis, distichis, 30–50 ≃ 18–22, utrinque appendicula hyalina sporidium subæquante auctis, brunneis; paraphysibus articulatis asco longioribus. 843

Hab. in fimo vaccino, Ribe (Dania).

7. **Sordaria fimiseda** Ces. et De Not., Wint. Sord. p. 25, t. IX, f. 13, *Podospora fimicola* Ces., *Cercospora fimiseda* Fuck. Symb. 245. — Peritheciis erumpenti-superficialibus confertis v. sparsis, ovoideo-conicis, majusculis, undique pilis fuligineis sursum pallidioribus, 80–100 ≃ 5, vestitis, contextu membranaceo; ascis longiuscule stipitatis, oblongo-fusoideis, acutiusculis, parte sporif. 350–400 ≃ 50–70, stip. 150–200 μ. longo; sporidiis octonis, plerumque distichis, interdum tamen deorsum monostichis, elliptico-ovatis, 50–60 ≃ 28–30 apice appendiculâ crassa subrecta hyalinâ breviori, basi cauda hyalina cylindraceo-fusoideâ tortuosâ, 100 ≃ 10 auctis. 844

Hab. in fimo equino, ovino et vaccino in Germania, Fennia, Britannia, Italia, Amer. boreali. — Quandoque cauda secunda accedit in basi sporidiorum cylindraceo-clavulata, hyalina, 55 ≃ 5.

8. **Sordaria californica** Plowr. Calif. Sphær. Grev. VII, p. 72, t. 120, fig. 2. — Peritheciis majusculis, indumento brunneo vestitis, spar- 845

sis v. gregariis, 1 mill. altis, ostiolo nudo ruguloso, subinde striis divergentibus circumdato; ascis crasse cylindraceis breve stipitatis, octosporis 200–300 μ. longis; sporidiis distichis oblongo-ellipsoideis basi subtruncatis, 30–35 ≃ 15–18, basi caudâ hyalina curvâ sporidium æquante auctis.

Hab. in fimo vaccino in California. — Sec. Plowr. species prædistincta.

9. **Sordaria carbonaria** (Plowr.) Sacc. *Sphæria carbonaria* Plowr. 846
Brit. Fungi in Grev. II, 188, t. 25, fig. 3. — Aggregata, globosa, semiimmersa, basi pilis hyalinis ramosis septatis cinta; ostiolo papillato, obtuso ruguloso; ascis cylindraceis, apice truncatis paraphysatis; sporidiis 8, subnaviculariibus, atro-fuscis, uniseriatis, 9 ≃ 3, cauda brevissima hyalina basi auctis.

Hab. in humo carbonacea prope Shrewsbury (Britannia).

10. **Sordaria bombardioides** Auersw. in Niessl Beitr. p. 37, t. VI, 847
fig. 4. Wint. Sord. 22, t. VIII, fig. 11. — Peritheciis sparse cæspitosis, subconfluentibus forma valde variabili, nunc ovoideis, oblongis, nunc subpyriformibus vel utriculiformibus $^3/_4$–$1^1/_3$ mill. altis, inferne contractis, apice late obtuse rotundatis, papillatis umbilicatisque, ceraceo-carnosis crassis, rugulosis, badiis, ostiolo fusco-atro; ascis elongato-clavatis stipite maxime elongato, apice obtusis, 8sporis, p. sporif. 140–160 ≃ 15–18; sporidiis oblique monostichis sed sæpe inordinatis, obovato-oblongis, plerumque inæquilateralibus, 22–25 ≃ 12–14, nitidis, fusco-atris, nucleo oleoso, circulo hyalino; paraphyses ascorum fere longitudine, articulatæ.

Hab. in fimo leporino prope Leipzig, Œderan et Brünn (Germania), in fimo equino in California. — Sec. Rehm sporidia 25 ≃ 9, asci cum stipite 270 ≃ 15.

11. **Sordaria curvula** de Bary Morph. Pilze p. 209, Wint. Sord. 37, 848
t. XI, fig. 22, *Cercophora conica* Fuck. Symb. p. 245. — Peritheciis sparsis subsuperficialibus, oblongo-conicis, sæpius curvatis, rugulosis, pilis crassis articulatis, plerumque fasciculatis dense obsitis, basi filis repentibus ramosis cinctis, 750–800 ≃ 380–400; ascis crasse cylindraceis, longissime stipitatis, 8-sporis, p. sporif. 129 ≃ 38; sporidiis ovoideis, opaco-fuscis, 18–25 ≃ 9–10, vertice hyalino-apiculatis, basi caudâ cylindraceâ 6 μ. long. hyalinâ auctis.

Hab. in fimo vaccino, equino, ovino, murino in tota Germania, Britannia, Italia, Fennia. — «Tuberculi peritheciorum distincte papillati; asci cilyndracei longe stipitati, 180–200 ≃ 18–22, apice rotundati, octospori; sporidia ellipsoidea, 22–25 ≃ 14, opace

fuliginea, caudâ hyalinâ cylindrica curvulâ aucta [Michelia]. — Var. *coronata* Wint. Sord. p. 38 (*Malinvernia breviseta* Fuck. Symb. p. 243). Peritheciis sub apice cirrhis 5–8 curvatis, divaricatis, fuscis, pellucidis coronatis, ceterum glabris. In fimo vaccino in Germania et Nova Zelandia. — Var. *aloides* (Fuck.) Wint. Sord. p. 38. Peritheciis sub apice cirrhis 5–12 elongatis curvatis, fuscis, opacis coronatis. In fimo vaccino in Helvetia.

12. **Sordaria Winterii** Karst. Myc. Fenn. II, p. 251, *Sord. breviseta* Karst. Myc. Fenn. II, p. 52, nec Fuck. — Peritheciis sparsis vel gregariis, erumpentibus, demum sæpe liberis, ovoideis, ad apicem obtusum, ostiolo latiusculo hiantem, attenuatis, atris, setulis brevibus, fuscis, subtilibus hirtulis; ascis pedicellatis, octosporis, cylindraceo-clavatis, apicem versus attenuatis, 150 ≃ 30–40 p. sporif.; sporidiis subdistichis, ellipsoideis, fuscis, opacis polo inferiori appendicula sporidium subæquante, hyalina instructis, (sine appendicula) 22–36 ≃ 14–15. 849

Hab. supra fimum equinum, vaccinum et leporinum in Fennia meridionali et media autumno passim. — Partibus externis simillima est *Sord. fimisedæ*.

13. **Sordaria micrura** (Speg.) Sacc. *Hypocopra micrura* Speg. Pug. 2. p. 20. — Peritheciis minutis, 150–180 μ. diam., levibus, globoso-lenticularibus, matrice immersis, ostiolo papillato, subcarbonaceo, exerto; hyphis repentibus anastomosantibus ornatis; contextu membranaceo-parenchymatico, olivaceo-fusco; ascis clavato-elongatis, sursum rotundatis, deorsum in pedicellum breviusculum attenuatis, 160–180 ≃ 20–25, octosporis; sporidiis subdistichis, elliptico-limoniiformibus, 20–25 ≃ 15, fuligineis, basi caudâ hyalinâ parvulâ 8–10 ≃ 2 donatis. 850

Hab. in fimo Caviæ leucopygæ in pratis prope Buenos Aires, Argent. Amer. austr. — Peritheciis levibus, ascis breve stipitatis etc. à *Sord. curvula* dignoscitur.

14. **Sordaria appendiculata** (Auersw.) Niessl Beitr. pag. 38, tab. V, fig. 40. — Peritheciis nunc sparsis, nunc aggregatis, oblongis, cum ostiolo conico sæpe curvato confluentibus, crassiusculis carnose coriaceis, atris, villo brevi fusco-griseo obductis; pilis 40 μ. long.; ascis clavatis longe stipitatis, 150–160 ≃ 26–30 p. sporif.; apice obtuso-retusis, 8sporis; sporidiis subdistichis, ovato-oblongis, 26–28 ≃ 14–15, nitidis, atro-fuscis in polo inferiore, rarius utrinque, appendicula recta vel parum curvata subhyalina, attenuata auctis; paraphysibus ascos superantibus angustis guttulatis. 851

Hab. in fimo leporino prope Leipzig, Brünn etc. in Germania. — Sec. Rehm Asc. Diagn. n. 498 appendicula superior 20–26 ≃ 3, denique brunneola, inferior 70 ≃ 3, curva, hyalina. — Satis diversa videtur a *Sordaria curvula* quacum jungitur a Wintero.

15. **Sordaria decipiens** Winter Sord. pag. 28, tab. IX, fig. 16, Fuck. Symb. myc. App. II. pag. 44, tab. I. fig. 33. — Peritheciis sparsis, immersis, usque ad 1 mill. altis, globosis, primo et maturis fusco-diaphanis, extus pilis sparsis, brevibus, ostiolo brevi, truncato, obscuriori; ascis elongatis, utrinque attenuatis, 8sporis, 174–200 ≃ 40–50, stipite 80–100 μ. longo; sporidiis distichis, lanceolato-oblongis, 1–2-guttulatis, rectis, umbrinis, demum subopacis, 36–48 ≃ 19–22, basi caudâ cylindrico-clavulatâ, 40 ≃ 8, lobulatâ instructis, apice caudiculis duabus, subliberis perfecte circinatis, indeque sæpius unicam simulantibus ornatis. 852

Hab. in fimo vaccino, cuniculorum et equino in Germania, Tyrolia et Italia boreali.

16. **Sordaria amphicornis** Ellis Bull. Torr. 1876, p. 109, *Sph. eximia* Peck, 28 Rep. on the St. Mus. p. 78, tab. 2, fig. 14–17. — Peritheciis sparsis, subsuperficialibus, ovato-conicis, obtusis ¾–1 mill. altis, villo fusco erecto vestitis; pilis tenuiter septatis; ascis octosporis tereti-clavatis; sporidiis ovoideis v. subnavicularibus, olivaceis denique fuligineis, 30 ≃ 12–13, utrinque appendicibus subfiliformibus sporidio multo longioribus, rectiusculis auctis. 853

Hab. in fimo cuniculorum et leporum Kasoag, Newfield, Amer. bor. — Teste Rehm (Asc. n. 498) est *Sordariæ appendiculatæ* forma, at ex icone l. c. diversa videtur.

17. **Sordaria valsoides** (Peck) Sacc. *Sphæria valsoides* Peck, 28 Rep. on the St. Mus. — Peritheciis matrice immersis, sparsis, nigris, apice pilis rigidis, erectis, paucis conspersis; ascis subclavatis; sporidiis biseriatis v. sparsis, ellipsoideo-oblongis, 27–33 μ. longis, initio olivaceis, dein fuligineis, sæpius uni-guttatis, basi cauda hyalina breviuscula auctis. 854

Hab. in stercore vaccino, Sageville, Amer. bor. — Cauda plerumque dimidium sporidium æquans. Setulæ vel processus ad apicem peritheciorum *Valsam* minutam quamdam æmulantur, unde nomen.

18. **Sordaria squamulosa** Crouan Finist. pag. 22. — Peritheciis subpyriformibus, solidiusculis, olivaceis, 2 mill. cr., ostiolo nigro pilis 855

brevissimis obsito; ascis sub-clavatis, octosporis; sporidiis ovoideis, fuligineis, appendiculis hyalinis angustissimis, curvis auctis.

Hab. in fimo vaccino, Finistère (Gallia).

Phytogenæ.

19. **Sordaria lignicola** Fuck. Symb. Myc. App. I, p. 38, Wint. Sord. p. 27, t. IX, f. 15. — Peritheciis massa gelatinosa sordida circumdatis, sparsis gregariisque, aut in ligno molli immersis, aut et plerumque liberis, majusculis, nigris, e basi globosa sensim in rostrum crassum, truncatum, perithecium dimidium subæquans attenuatis, 650 ≃ 500; ascis amplis, elongatis, 8sporis, 152 ≃ 15 p. sporif.; sporidiis distichis, immaturis cylindraceis, curvatis, multiguttulatis, continuis, hyalinis, utrinque appendicula spiniformi, recta, diametrum sporidii æquante, 48 ≃ 4; sporidiis maturis plerumque ab appendiculis liberatis, ovatis, basi truncatis, antice attenuatis, simplicibus, opaco-fuscis, 17 ≃ 10. 856

Hab. in ligno putri Fagi prope Eberbach (Rhenogovia).

20. **Sordaria tomentosa** (Speg.) Sacc. *Hypocopra tomentosa* Speg. Fungi Arg. Pug. IV, n. 46. — Peritheciis densiuscule gregariis, ovato-subpyriformibus, majusculis, 1–1,5 mill. alt., 0,5–0,7 mill. crass., superficialibus, adpresse pruinuloso-lanuginosis, atro-olivaceis, ostiolo conico, crassiusculo, vertice rotundato-truncato, atro, glabro ornatis, contextu parenchymatico, membranaceo, olivaceo-fuligineo; ascis cylindraceis, sursum longiuscule attenuatis, apice truncato-rotundatis, deorsum breviuscule et crasse stipitatis, 240–300 ≃ 35–40, octosporis, aparaphysatis; sporidiis oblique monostichis, v. recte subdistichis, ellipticis, utrinque obtusiuscule rotundatis, majusculis, 50–70 ≃ 25, intense fuligineis, 1-guttulatis, duabus caudibus mucoso-hyalinis ornatis; superâ subæquilongâ, 5 μ. crass., contorto-revolutâ, inferâ recte flexuosâ, nonnihil longiore. Hyphæ peritheciorum strigoso-intricatæ, breves, anastomosantes, crebre ramulosæ et parce septatæ, fuligineo-olivaceæ, 5 μ. crass. 857

Hab. in ramulis dejectis emortuis Salicis Humboldtianæ humo obvolutis in paludosis a la Recoleta, Arg., Amer. austr.

21. **Sordaria caudata** (Curr.) Sacc. *Sphæria caudata* Curr. Linn. Trans. XXII, p. 320, t. 58, f. 50, — Peritheciis parvis, sparsis, v. paucis aggregatis, conoideis v. subglobosis, ostiolo conico; ascis crasse cylindraceo-fusoideis, breve stipitatis, octosporis; sporidiis biseriatis ovoideis, 20 μ. long., fuligineis, basi subtruncatis caudaque hyalinâ sesquilongiore guttulatâ, curvulâ auctis. 858

Hab. in ligno putri molli, Twycross (Britannia). — Perithecia modo subimmersa, modo fere libera.

22. **Sordaria lanuginosa** (Pr.) Sacc. Fungi Ven. Ser. VI. p. 26, *Sph.* 859
lanuginosa Pr. in Linn. 1853, XXVI, 714, *Arnium lanuginosum* Nits., *Sordaria Curreyi* Auersw., Niessl., Beitr. 42 (teste ipso), *Sph.* (Sord.) *Brassicæ* Kl. — Peritheciis majusculis, globoso-conoideis, sæpe curvulis, vertice subtruncatis, sordide griseo-tomentosis, $^3/_4$ mill. cr., 1 mill. alt., superficialibus; ascis cylindraceis, 150–160 ≃ 25–26 p. sporif., stipitatis apice obtuse rotundatis, octosporis; sporidiis oblique monostichis, ovato-ellipsoideis, 40–50 ≃ 24, opace fuligineis, utrimque v. basi tantum caudâ hyalinâ deciduâ auctis.

Hab. in caulibus ramisque putridis Brassicæ, Serratulæ, Heilanthi, Saponariæ, Ulmi et Sambuci, Selva et Conegliano, Italia bor., Germania et Britannia. — *Sord. lanuginosa* Crouan Fin. p. 22 non videtur diversa.

23. **Sordaria culmigena** Sacc. et Sp. Mich. I. 373. F. it. t. 392. — 860
Peritheciis sparsis superficialibus, globoso-conoideis, vix $^1/_2$ mill. diam., molliter atro-villosis; ascis cylindraceo-clavatis, 180–200 ≃ 25, breve stipitatis, paraphysatis, octosporis; sporidiis monostichis initio lasiosphæriaceis hyalinis, dein ovoideis, 36–40 ≃ 18, 1-guttatis fuligineis, caudâ longissimâ 90–100 ≃ 4–5 hyalinâ, quandoque 1-septatâ utrimque auctis.

Hab. in culmis Arundinis Donacis putridis, Conegliano (Italia bor.). — A *Sord. lanuginosa* appendiculis sporidiorum plusquam duplo longioribus imprimis differt.

24. **Sordaria leucotricha** Speg. Mich. I, 225, Sacc. Fung. ital. t. 619. 861
— Peritheciis gregariis, superficialibus, globosis 250–350 micr. d., pilis longissimis, remote septatis, 3–4 micr. cr. oblongo-hyalinis obvolutis; ostiolo vix prominulo late pertuso; contextu tenui-membranaceo, parenchymatico, flavo-fuscidulo; ascis cylindraceis apice obtuse rotundatis, breve stipitatis, 210–220 ≃ 20–25, aparaphysatis, octosporis; sporidiis oblique monostichis subsphæricis v. ellipsoideis, 30–32 ≃ 18–28, late fuligineis, crasse subhyalino-1-nucleatis, caudâque conicâ sæpe curvulâ, 7–8 ≃ 5, auctis.

Hab. in ramulis putridis Sambuci nigræ, Conegliano (Italia boreali).

25. **Sordaria austro-americana** (Speg.) Sacc. *Hypocopra austro-ame-* 862
ricana Speg. Fungi Arg. Pug. III, n. 47. — Peritheciis superficialibus v. immersis laxiuscule gregariis v. hinc inde sparsis, minutulis, 0,3–0,5 mill., atris, glabris, globosis, ostiolo papillato-trun-

cato donatis, e sporidiis exsilientibus sæpius atro-areolatis; ascis cylindraceo-clavatis, sursum obtuse rotundatis, deorsum in pedicellum longiusculum attenuatis, 100–110 ≃ 16–17 p. sporif., 60–80 ≃ 4–6 ped., octosporis, paraphysibus filiformibus, longioribus, crassiusculis obvallatis; sporidiis recte v. oblique distichis, ellipticis, utrinque acutiuscule rotundatis, opace fuligineis, 28–30 ≃ 10–12, deorsum caudâ cylindraceo-clavatâ, 14 ≃ 5, hyalinâ, facillime deciduâ auctis.

Hab. in parte interiore humo obducta trunci vetusti ac cæsi Pircuniæ dioicæ prope S. José de Flores, Argent. Amer. austr. — Var. *Agavis americanæ* Speg. Fungi Arg. Pug. IV, n. 129. A typo recedit peritheciis nonnihil minoribus, 200–250, magis coriaceis, ascis brevius stipitatis crassioribusque, 140–150 ≃ 20, paraphysibus ægre visibilibus; sporidiorum magnitudine 24–30 ≃ 12–14, colore atque cauda, 15–20 ≃ 2–4, ut in typo. Hæc forma in ligno denudato vigens nonnihil ad *Rosselliniam* vergit. — In ejusdem ligno dejecto putrescente prope el Bañado de S. José de Flores, Argent. Amer. austr.

26. **Sordaria Cirsii** Crouan Finist. p. 22. — Peritheciis pyriformibus, 2–3 mill. alt., nigricantibus, glabris, hinc vero hyphis mycelicis inspersis; ascis magnis, clavatis, apice mamillatis, deorsum attenuatis, e placenta filamentoso-cellulari oriundis, octosporis; sporidiis ovoideis, monostichis, flavis, dein nigricantibus, polis appendicula hyalina incurva, attenuata auctis. 863

Hab. in basi putrida Cirsii palustris in paludibus Finistère (Gallia).

II. *Malinvernia:* ascis tetrasporis.

27. **Sordaria anserina** (Rabh.) Wint. Sord. 35, t. XI, fig. 20, Sacc. Fungi Ven. V, p. 178, *Malinvernia anserina* Rabh., *Hypocopra anserina* Ces. in litt. — Peritheciis semiimmersis, majusculis, $^1/_3$–$^1/_2$ mill. crass., globoso-conoideis, hyphis repentibus conidiophoris basi cinctis, verticeque setis rigidulis ex hyphis coalitis fuligineis instructis; contextu parenchymatico fuligineo (in forma *anserina* subcarbonaceo, in forma *ovina* et *equina* submembranaceo); ascis fusoideo-clavatis, p. sporif. 160–180 ≃ 30–32, stip. 110–115 ≃ 7–9, tetrasporis; sporidiis monostichis ovato-ellipsoideis, obtusiusculis, 40–42 ≃ 22, opace fuligineis, caudâ hyalinâ, 35 ≃ 5, basi donatis. 864

Hab. in stercore anserino, ovino, vaccino, equino, cuniculorumque in Germania et Italia boreali.

28. **Sordaria australis** (Speg.) Sacc. *Hypocopra australis* Speg. Fung. Arg. Pug. III, p. 16. — Peritheciis totaliter immersis atro-olivaceis majusculis, 0,5–0,8 mill., globosis, papillatis, truncato-ostiolatis et atro-rufescentibus, hyphis olivaceo-fuligineis, crebris, longiusculis, repentibus ubique vestitis; ascis cylindraceo-clavatis, sursum obtusissime rotundatis, deorsum in pedicellum crassiusculum attenuatis, 240–280 ≃ 30, tetrasporis, aparaphysatis; sporidiis oblique distichis, majusculis, 60–70 ≃ 25–30, utrimque obtusiuscule rotundatis, crassiuscule tunicatis, læte fuligineis, utrinque hyalino-caudatis, cauda superiore minore contorto-cirrhata, inferiore longiore, 50–70 ≃ 5, flexuoso-recta. 865

Hab. in fimo vetusto Myopotami coypi ad truncos vetustos in nemorosis paludosis secus el Rio de la Plata a la Recoleta Argent. Amer. boreali.

29. **Sordaria erecta** (Speg.) Sacc. *Hypocopra erecta* Speg. Pug. 2, p. 20. — Peritheciis ellipsoideis v. ovoideis, $^1/_2$–$^2/_3$ mill. altis, erectis, superficialibus, glabris, v. pruinosis, griseo-fuligineis, basi hyphis radiantibus cinctis; ascis cylindraceo-clavatis, sursum truncato-rotundatis, longe stipitatis, 200–220 ≃ 25–30, tetrasporis, aparaphysatis; sporidiis monostichis elliptico-navicularibus, utrinque subrotundatis 38–42 ≃ 20, caudâ cylindraceâ, rectâ v. uncinata sporidium æquante utrinque auctis. 866

Hab. in fimo vaccino prope S. José de Flores, Argentina (Amer. austr.). — Caudæ sporidiorum cito fluxiles. Asci quandoque 5-6-spori.

30. **Sordaria Sarawacensis** Ces. Mycet. Born. p. 22. — Peritheciis ex hyphasmate subiculum sat tenax albescens constituente emersis, minutissimis, atris, ovalibus, in ostiolum acutum carbonaceum excurrentibus, cæterum substantia minute vesiculosa; ascis clavatis tetrasporis, sporidiis ovalibus utrinque obtusis, polo inferiori crasse caudato, 18 ≃ 8–10, incl. cauda 10 μ. longa. 867

Hab. in fimo bubalino? Ceylon et Sarawak, Bornei.

Dubiæ.

31. **Sordaria grisea** Ces. Mycet. Born. p. 22. — Peritheciis aggregatis, majusculis, ovoideis, cinereo-pulveraceis, serius glabratis sed scabridis, nigris, in ostiolum conicum continuis; ascis mox diffluentibus; sporidiis ovalibus, fuscis, simplicibus, guttula centrali sat conspicua; basi truncatis ergo prima ætate probabiliter caudatis. 868

Hab. ad fimum Ceylon, ad Pedrotallagalla.

HYPOCOPRA Fuck. Symb. myc. p. 240 et vix Fr. S. v. Sc. p. 397. (Etym. *hypo*, sub, *copros*, fimus). — Perithecia simplicia (stromate deficiente), conferta sparsave matrice subimmersa v. insidentia submembranacea ovato-globosa, atra, glabra v. pilosa, ostiolo papillæformi. Asci cylindracei 4-8-spori; sporidia ovoidea v. ellipsoidea, fusca, ecaudata, circulo hyalino ut plurimum obvoluta.

Fimicolæ.

A) Octosporæ.

1. **Hypocopra fimicola** (Rob.) Sacc. *Sordaria fimicola* Ces. et de Not. Schem. Sfer. p. 52. Wint. Sord. p. 17, t. VII, fig. 6. *Sphæria fimicola* Rob. in Desm. 17 Not. Ann. Sc. nat. 1849, p. 339. — Peritheciis gregariis, confertisve, semiimmersis minutis, $^1/_5$–$^1/_4$ mill. diam., subglobosis cum ostiolo conoideo crasso brevi sæpe obliquo confluentibus, membranaceo-coriaceis rugulosis, lævibus, atris; ascis cylindricis, stipitatis, 100–150 ≃ 14–16 p. sporif.; apice late rotundatis 8sporis; sporidiis oblique monostichis, ovoideis, 17–20 ≃ 10–12, olivaceo-fuscis, nitidis, nucleo oleoso, circulo hyalino. 869

Hab. in fimo leporino, ovino, canino, vaccinoque, in Germania, Belgio, Gallia, Britannia, Fennia, Italia, Amer. austr. — Forma quæ describitur in Mich. I, 226 et in Myc. Fenn. II, p. 50, est var. *macrospora:* sporidiis 30–32 ≃ 16–18.

2. **Hypocopra humana** Fuck. Symb. Myc. p. 241. *Sordaria humana* Wint. Sord. p. 21, t. VIII, fig. 9. — Peritheciis confertis, tectis sub crusta rugulosa, globosis, opaco-nigis, $^1/_3$ mill. cr. ostiolo emerso, cylindraceo, vel perparum conico, recto, nitido; ascis cylindraceis, stipitatis, 8sporis, 130–140 ≃ 15–18; sporidiis monostichis, subglobosis, vel globoso-ovatis, 20–24 ≃ 16–18, atro-fuscis, strato hyalina facile fluxili obvolutis. 870

Hab. in merda humana in Germania, Gallia, Italia, Fennia, Amer. austr. — Conf. Mich. I, p. 223, ubi fusius describitur nec non st. conidiophorus. Sec. Karst. est habenda ut var. *C. fimeti.*

3. **Hypocopra discospora** (Auersw.) Fuck. Symb. App. II. p. 43. *Sordaria discospora* Auersw. in Niessl. Beitr. p. 42, t. VI, fig. 44. Wint. Sord. 19, t. VIII, fig. 8. — Peritheciis sparsis, minutis, globosis, cum ostiolo conico obtuso brevi crasso setis rigidis nigris instructo confluentibus, membranaceo-coriaceis, rugulosis, sublævibus, atris, $^1/_3$ mill. altis; ascis cylindricis, stipite brevi, apice retusotruncatis 8sporis, 80–90 ≃ 12 p. sporif.; sporidiis oblique monostichis, disciformibus, seu subrotundo-ellipticis, a latere compres- 871

sis, 12–13 μ. diam. e latere 3–5 μ. diam., fuscis, nitidis, nucleo oleoso. Paraphyses exiguæ (?).

Hab. in fimo leporino, cuniculorum, equino, pr. Leipzig, Brünn, Œstrich etc. (Germania) in Tyrolia et Britannia.

872 4. **Hypocopra platyspora** (Plowr.) Sacc. *Sordaria platyspora* Plow. Br. Fungi in Grevill. VI, p. 28, t. 94, fig. 2. — Peritheciis sparsis fimo semiimmersis, conoideis, mediocribus, setulis rigidis, brevibus, crassis obsitis; ascis cylindraceis, subsessilibus, 130 ≃ 12, octosporis; sporidiis monostichis e fronte suborbicularibus, 20 ≃ 18 e latere valde compressis 2–3 μ. cr., nigricantibus.

Hab. in fimo equino, Forres (Britannia) legit rev. J. Keith. 873

5. **Hypocopra superba** (De Not.) Sacc. *Sordaria superba* De Not. Recl. Pir. in Comm. Critt. II, p, 479. — Peritheciis sparsis superficialibus, sphæroideis, atris, nudis, vertice nonnihil tenuato obtuse umbonatis ostiolo exiguo hiantibus; cellulis stratosis, in sicco collabascentibus; ascis teretibus, leptodermis, octosporis; sporidiis ellipsoideis, majusculis, fuligineo-fuscis, opacis, involucro diaphano crasso utrinque truncato obductis.

Hab. in excrementis Arctomydis Marmotæ, Val Grisanche, Italia boreali.

874 6. **Hypocopra vagans** (De Not.) Sacc. *Sordaria vagans* De Not. Recl. Piren. in Comm. Critt. II, p. 479. — Sparsa, superficialis; peritheciis ovoideis vertice crasse mammoso-attenuatis, atris, tenuiter villosulis, cellulis stratosis contextis, in sicco fragilibus; ascis e basi tenuata teretibus, octosporis, juventute apice subcapitellatis, aparaphysatis, sporidiis sphæroideis v. sphæroideo-ellipsoideis, badio-fuscis parce translucidis.

Hab. in excrementis Leporis variabilis, Riva, Valsesia (Ital. bor.). — Affinis sed satis diversa ab *H. macrospora.*

875 7. **Hypocopra microspora** (Plowr.) Sacc, *Sordaria microspora* Plowr. Brit. Fungi Grev. VI, p. 28, t. 94, fig. 3. — Peritheciis sparsis, majusculis obtuse conicis, parte superiori liberis setulisque rigidis brevibus 40 μ. long. obtusis, basi filis mycelicis paucis cinctis; ascis cylindricis 45–50 ≃ 6–8, octosporis; sporidiis monostichis, subglobosis, minutis e latere compressis, 7 ≃ 5, e latere 2 μ. cr., circulo hyalino obductis, fuligineis,

Hab. in fimo equino, Forres (Britannia) legit J. Keith.

876 8. **Hypocopra macrospora** (Auersw.) Sacc. *Sordaria macrospora* Auersw. in Rabenh. fung. eur. n. 954, Niessl Beitr. p. 30, t. VI, fig. 43. *Hypocopra stercoris* Fuck. — Peritheciis sparsis vel gre-

gariis subglobosis cum ostiolo conoideo confluentibus, coriaceis, lævibus, fusco-atris, rugulosis $^1/_2$-$^3/_4$, mill. altis; ascis cylindricis, stipitatis, apice obtuse rotundatis vel retusis 190-200 ≃ 22-24 p. sporif.; sporidiis magnis, ovoideis, 26-30 ≃ 15-17, nitidis, olivaceo-fuscis, nucleo oleoso. Paraphyses exiguæ (?).

Hab. in fimo leporino, murino, ovino, vaccinoque pr. Leipzig, Brünn, Zwittau, Schwarzkirchen, Gratz, Giessen etc. (Germania), nec non in Fennia et in Italia boreali.

9. **Hypocopra gigaspora** (Fuck.) Sacc. *Sordaria gigaspora* Fuck. 877
Symb. mycol. App. III, p. 26. — Peritheciis absque stromate in fimo immersis, demum vertice liberis, sparsis vel laxe gregariis, e maximis, perfecte globosis, lævibus, glabris, atris, ostiolo abrupte imposito, cylindraceo, plus minusve brevi, subtruncato; ascis saccatis, maximis, 8sporis, distichis, ovatis, utrinque obtusissimis, continuis, lævibus, maturis fusco-violaceis, 70 ≃ 34.

Hab. in fimo vaccino in passu Bernina (Helvetia).

10. **Hypocopra capturæ** (Speg.) Sacc. *Sordaria capturæ* Speg. F. 878
Argent. Pug. II, p. 21. — Peritheciis majusculis $^1/_2$-$^3/_4$ mill. globosis, levibus, matrici immersis vel plus minusve protuberantibus, ceraceo-subolivaceis, ostiolo papillato, exerto, atro donatis, contextu tenui membranaceo-parenchymatico, olivaceo; ascis cylindraceis, sursum truncato-rotundatis, crassiuscule tunicatis, deorsum in pedicellum crassiusculum ac abbreviatum desinentibus, p. sporif. 200-210 ≃ 25-28, ped. 50-60 ≃ 10-15, octosporis, paraphysibus filiformibus, quandoque ramulosis obvallatis; sporidiis oblique monostichis, ellipticis utrinque obtuse rotundatis 32-36 ≃ 18-20, opace fuligineis, exappendiculatis, strato hyalino, persistente, mucoso, crassiusculo obvolutis.

Hab. in fimo Caviæ leucopygæ vetusto in pratis circa San José de Flores, Argent. Amer. austr.

11. **Hypocopra aviaria** Karst. Fungi Spetsberg p. 97, n. 28. — Pe- 879
ritheciis sparsis vel gregariis, demum sæpe subsuperficialibus, sphæroideis, ostiolo papillato, atris, glabris, latit. $^1/_3$-$^1/_4$ mill.; ascis cylindraceis, jodo non cærulescentibus, 82-110 ≃ 12; sporidiis octonis monostichis, ellipsoideis vel sphæroideo-ellipsoideis, simplicibus, fuscis, 14-18 ≃ 9-10.

Hab. in stercore anserino, locis humidis, in Beeren Eiland. (Spitzberg). — Ab *H. stercoraria* (Sow.) præcipue forma et magnitudine sporidiorum minore diversa. Crusta fere nulla.

12. **Hypocopra argentina** (Speg.) Sacc. *Sordaria argentina* Speg. 880

F. Argent. Pug. 2, n. 64. — Peritheciis minutis 150–180, matrici semiimmersis, levibus, contextu membranaceo, sinuoso-parenchymatico, olivaceo, circa ostiolum coriaceo-subcarbonaceo-atro; ascis cylindraceis, sursum truncato-rotundatis, crasse tunicatis, deorsum in pedicellum crassum, abbreviatumque attenuatis 120–130 ≃ 16–17, octosporis, aparaphysatis; sporidis oblique monostichis, ellipticis, utrinque acutiuscule rotundatis, 15–16 ≃ 10, primo hyalinis dein fulvo-flavidis strato mucoso hyalino fluxili obvolutis, postremo fuligineis, liberis.

Hab. in fimo Caviæ leucopygæ prope S. José de Flores, Argent. Amer. austr.

13. **Hypocopra bombardioides** (Auersw. et Wint.) Sacc. *Sordaria bombardioides* Wint. Sord. p. 22, t. VIII, fig. 11. — Peritheciis superficialibus sparsis, plerumque gregariis, basi subfasciculatis, ovoideis, subumbilicatis, sub apice, subcontrictis, obtusissime papillatis, fusco-nigris, glabris, rugulosis, 1–1½ mill. altis; ascis teretibus, longe stipitatis, 8-sporis, 170 ≃ 15 p. sporif.; lumine apice foveolato; sporidiis oblique monostichis, ovoideis, circulo hyalino obvolutis, opaco-atris, 22 ≃ 12; paraphysibus asco longioribus, filiformibus, septatis. 881

Hab. in fimo leporino Arnstadt, Brünn, Œderan (Germania). — Forma peritheciorum prædistincta species.

14. **Hypocopra insignis** (Hans.) Sacc. *Sordaria insignis* E. C. Hans. Champ. ster. Dan. p. 21, t. VII, f. 13–16. — Peritheciis gregariis subimmersis breve pyriformibus, v. oblongis 1 mill. altis; ostiolo papillato, nigro, pilis nigris articulatis, obsito; ascis stipitatis fusoideis, apice truncatis, octosporis, 240 ≃ 68, p. sporif.; sporidiis distichis ovoideis, atro-brunneis 50–54 ≃ 24–31; paraphysibus septatis ascos superantibus. 882

Hab. in fimo equino, Holte in Selandia (Dania).

15. **Hypocopra barbata** (Hans.) Sacc. *Sordaria barbata* E. C. Hans. Champ. sterc. Dan. 21, t. IX, f. 19–22. — Peritheciis pyriformibus, subnigris, ½–¾ mill. altis, pilis copiosis quandoque fasciculatis vestitis, sparsis, subimmersis; ascis fusoideo-clavatis, longe stipitatis, 160–200 ≃ 44–60 p. sporif., octosporis; sporidiis ovoideis, hinc acutiusculis, olivaceo-fuligineis, 45–54 ≃ 23–31, paraphysibus septatis ascos subæquantibus. 883

Hab. in fimo ovino, Rudersdal in Selandia Daniæ. — Perithecia subinde distoma.

16. **Hypocopra scatigena** (B. et Br,) Sacc. *Sphæria scatigena* B. et 884

Br. Not. Brit. Fungi n. 972, t. 17, fig. 25. — Peritheciis liberis, ovoideis, subtiliter hispidis, pilis brevibus, rigidis; ostiolo papillato truncato; ascis teretibus, breve stipitatis, octosporis; sporidiis ellipsoideis, monostichis, initio circulo hyalino obvolutis, 20 μ. longis e fronte subglobosis, fuligineis.

Hab. in stercore equino King's Cliffe (Britannia).

17. **Hypocopra minima** (S. et Sp.) Sacc. *Sordaria minima* S. et Sp. Mich. I, 373, F. ital. t. 617. — Peritheciis subsuperficialibus e globoso conoideis, 100–150 micr. diam., levibus, glabris, nigris, ostiolo obtuse papillato; perithecii contextu tenui, minute areolato, fuligineo; ascis cylindraceis breve stipitatis, apice rotundato-truncatis, 50–58 ≃ 5–6, paraphysibus nullis visis, octosporis; sporidiis oblique monostichis ovoideis v. subellipsoideis, 8 ≃ 4, fuligineis (eguttulatis visis). 885

Hab. in fimo vaccino in sylva Cansiglio (Ital. bor.) socia *Sporormia fimetaria*. — Minutie peritheciorum sporidiorumque a ceteris speciebus mox dignoscitur.

18. **Hypocopra stercoraria** (Sow.) Sacc. nec Fuck. *Sph. stercoraria* Sow. t. 357, Curr. Linn. Trans. XXII, t. 57, fig. 38, Fr. S. M. II, 455. — Nigra, nitida, peritheciis globosis rigidis lævibus, ostiolo papillæformi; ascis crasse cylindraceis, breviuscule stipitatis; octosporis; sporidiis monostichis, ellipsoideo-limoniiformibus,, 30 μ. long. 886

Hab. in stercore humano et equino in Suecia, Britannia. — Perithecia crassa, firma, non collabentia. — Var. *macrosperma* Dur. et M., Fl. Alg. p. 499. Mont. Syll. Crypt. n. 805. Denudata, sparsa vel aggregata, passim confluens; perithèciis globosis magnis firmis nigris, ostiolo crassiusculo papillæformi pertuso impresso instructis; ascis amplis cylindricis sporidia 8 maxima elliptica opaca continua foventibus. — In stercore vaccino, La Calle (Durieu).

19. **Hypocopra leucoplaca** (B. et Rav.) Sacc. *Sphæria leucoplaca* B. et Rav. North Am. Fungi n. 913. — Minuta, strato albo floccoso insidiens; ascis linearibus; sporidiis ellipticis, fuscis, uniseriatis. 887

Hab. in fimo vaccino in Carolina inf. (Amer. bor.).

B) Tetrasporæ (*Hypocoprina*).

20. **Hypocopra Serignanensis** H. Fab. Spher. Vaucl. p. 77. — Peritheciis superficialibus, sparsis, atris, cylindraceo-conoideis, rugosiusculis, vertice subdepressis poroque minimo perforatis, ½ mill. cr., 1 mill. alt.; ascis cylindraceis, 4-sporis, longissime stipitatis, 888

250–300 μ. long. (pars sporifera long. 110–122 μ.); paraphysibus filiformibus, numerosissimis, obvallatis; sporidiis simplicibus, monostichis, ovalibus, annulo hyalino circumdatis, initio magniguttatis, dein opaco-atris, 25–34 ≃ 15–20.

Hab. ad stercora exsiccata Cuniculorum, in silvis Serignanensibus, Sérignan (Gallia).

21. **Hypocopra maxima** (Niessl) Sacc. *Sordaria maxima* Niessl, Beitr. 889
p. 38, t. VI, fig. 42. — Peritheciis gregariis, cæspitosis, forma et structura *H. bombardioidis* sed parum minoribus, ½–1 mill. alt., fusco-atris rugulosis; ascis clavato-cylindricis longissime stipitatis, 140–160 ≃ 20–25 p. sporif.; apice obtuse rotundatis, 4sporis; sporidiis monostichis, oblongis, majusculis, 34–42 ≃ 18–24; nitidis, fusco-atris, nucleo oleoso, circulo hyalino; paraphysibus ascos vix superantibus angustis.

Hab. in fimo leporino pr. Brünn (Moravia), Forres (Britannia). — Sec. cl. Wint. Sord. p. 23, huc verisimiliter spectat *Sph. stercoris* DC., Fr. Elench. II. 104.

22. **Hypocopra Rabenhorstii** (Niessl) Sacc. *Sordaria Rabenhorstii* 890
Niessl in Rabh. F. E. 1528, Wint. Sord. p. 16, t. VII, f. 5. — Peritheciis cæspitosis, primo immersis dein subsuperficialibus, ovoideis, fuscis, ⅓–½ mill. altis, pilis ramosis basi cinctis; ostiolo crasso elongato-conico, glabro, curvulo; ascis elongato-teretibus, longissime stipitatis, apice rotundatis, 70–80 ≃ 10 p. sporif.; 4–5-sporis; sporidiis monostichis ovoideis, fuscis, 14 ≃ 8, circulo hyalino obvolutis; paraphysibus ascum æquantibus, filiformibus, septatis.

Hab. in fimo Caprearum et Leporum prope Brünn, Moravia.

Non vere fimicolæ.

23. **Hypocopra papyricola** (Wint.) Sacc. *Sordaria papyricola* Wint. 891
Sord., p. 18, t. VIII, fig. 7. — Peritheciis sparsis, superficialibus, ovato-conicis, rugulosis, fuscis, basi pilis tenuissimis, arachnoideis repentibus cinctis, apice in collum crassum, breve conicum obtusatum attenuatis, ¾ mill. altis; ascis teretibus, longissime stipitatis, apice attenuatis obtusis, 150–180 ≃ 24–26 p. sporif.; paraphysatis; sporidiis subdistichis, ovoideis fusco-nigris, 29–38 ≃ 17–22.

Hab. in charta bibula putri in calidariis Lipsiæ. — **H. Rehmii* Sacc. (Rehm Asc. n. 300); sporidiis 18 ≃ 9, circulo hyalino crasso obvolutis; ascis 125 ≃ 10; peritheciis hyphis dichotomis fuscis cinctis. — In charta uda cum graminibus, Berolini.

24. **Hypocopra fermenti** Fuck. Symb. myc. 241. Wint. Sord. 21, tab. VIII, fig. 10. — Peritheciis subsuperficialibus, globosis, media magnitudine, $^1/_3$ mill. diam, dense villosis, villo sordido (glabris sec. Wint.), ostiolis papillatis, obtusis, perforatis, atris; ascis cylindraceis, stiptatis, 8sporis, 140 ≃ 20 p. sporif.; sporidiis monostichis, ovatis, fuscis, maturis opacis, 20–24 ≃ 15–18, hyalino-obvolutis. 892

Hab. in fermentò vini aeri diu exposito in Rhenogovia.

25. **Hypocopra phyllogena** Sacc. Mich. I, 373. F. ital. t. 391 (ut var. *H. fermenti*). — Peritheciis in pagina inferiore foliorum putridorum gregariis, superficialibus, $^1/_3$ mill. diam., globoso-conoideis, regularibus, levibus, glabrisque; contextu distincte parenchymatico fuligineo; ascis cylindricis, 115–130 ≃ 18, apice lumine 2-foveolato rotundatis, breve stipitatis, 8sporis; sporidiis globoso-ellipsoideis, 20–22 ≃ 17, initio olivaceis, strato angusto mucoso obductis, dein atrofuligineis, crasse 1-guttatis. 893

Hab. in pag. inf. foliorum putrium Populi albæ, Vittorio (Ital. bor.). — Ab *H. fermenti* præcipue differt peritheciis regularibus, levibus, habitatione etc.

26. **Hypocopra? lasioderma** (Dur. et Mont.) Sacc. *Sphæria lasioderma* Dur. et Mont. Fl. Alg., I, p. 494, t. 27, f. 5. Mont. Syll. Crypt. n. 798. — Sparsa, subrumpens, villosa; peritheciis magnis ovoideis fusco-atris, cum ostiolo late aperto confluentibus, villo griseo flexuoso mucido undique tectis; ascis maximis, clavato-cylindricis deorsum subpedicellatis, inter paraphyses ramosas nidulantibus, sporidia 4-6 ovoideo-oblonga fusca maxima includentibus. 894

Hab. in caule Ferulæ dejecto, Alger (Durieu).

27. **Hypocopra capillifera** (Curr.) Sacc. *Sphæria capillifera* Curr. Linn. Tran. XXII, p. 317, t. 57, fig. 26. — Peritheciis globosis, setulis rigidis brevissimis parce vestitis, subiculo pallido insidentibus, ostiolis mamillatis; ascis cylindraceis octosporis; sporidiis monostichis, late ellipsoideis, 1-2-nucleatis, fusco-fuligineis, 7,5–10 μ. longis. 895

Hab. in Corticio et ligno subjecto in Britannia.

28. **Hypocopra vesticola** (B. et Br.) Sacc. *Sphæria vesticola* B. et Br. Brit. Fungi n. 874. Cooke Handb. n. 2602. — Peritheciis gregariis ovoideis, obliquis, sursum attenuatis, olivaceo-nigricantibus, deorsum flocculis v. furfure rugulosis; ascis linearibus; sporidiis limoniiformibus, uniseriatis 17 μ longis, nigricantibus. 896

Hab. in tela vetusta putri, Batheaston (Britannia).

29. **Hypocopra Rotula** (Cooke). Sacc. *Sphæria rotula* Cooke Haudb. 897

n. 2598. — Gregaria v. sparsa; peritheciis globosis, atrobrunneis, villosulis v. glabris, opacis; ostiolo cylindraceo, crasso, radiatim sulcato, nigro; ascis ..... sporidiis crasse ovoideis, subacuminatis, atro-fuligineis, opacis.

Hab. in humo, near Shere, Surrey (Britannia). — Perithecia minuta; sporidia triplo crassiora quam in *Rosellinia papaverea*, cui nonnullis notis accedit.

Dubiæ.

30. **Hypocopra bolbitoni** Quel. Jura 513 (Gibbera), t. IV, fig. 21. — 898
Peritheciis sphæricis subtiliter tomentosis, fuligineis, ostiolo minuto pertuso; ascis tereti-clavatis; sporidiis ellipsoideis, octonis, 2-guttulatis, 20 μ. longis.

Hab. innato-cæspitosa in fimo vaccino in regione Juro-vogesiaca.

31. **Hypocopra punctiformis** (Ces.) Sacc. *Sordaria punctiformis* Ces. 899
Mycet. Born. p. 23. — Peritheciis minutissimis in subiculo crustaceo albicante, ovatis, glabris, ostiolo vix conspicuo; contexu grosse vesiculoso; ascis .....; sporidiis late ellipsoideis, fuscis, simplicibus, guttula centrali, 8 ⩲ 7, ecaudatis (an primitus?).

Hab. ad terram stercore animalium inquinatam, Ceylon, ad Pedrotallagalla, m. majo 1865. — Primo obtutu pro *Sordaria discospora*, Awd. (ap. Niessl. bot. Beitr. p. 42, seu *Hypocopra discospora* Fuck. Symb. myc. Zweit. Nachtr., pag. 43), habueram. Conditio speciminum ceylanicorum rem rite eruere non concessit. Calvities peritheciorum in nostro fungillo ex senescenti ejus ætate peti posset. Forma sporidiorum in utroque congruit; dissentiunt dimensiones. Ces. l. c.

32. **Hypocopra hippica** Sacc. *Hypoxylon equinum* B. et Rav. North 900
Am. Fungi n. 847. — Peritheciis e mycelio albo oriundis, ostiolis nigris papillæformibus; sporidiis breviter cymbiformibus, 15 μ. longis.

Hab. in fimo equino in Carol. inferiore (Ravenel).

33. **Hypocopra equina** (Fr.) Sacc. *Sphæria equina* Fries, in litt. et 901
in Mont. Syll. Crypt. n. 797. — Villosa; peritheciis globosis, minimis, villo tenerrimo erecto tectis; ostiolis nigris; sporidiis maximis atris (Ascoboli) oblongis, in ascis hyalinis seriatim dispositis.

Hab. in fimo equino prope Sedanum in Ardennis (Montagne).

34. **Hypocopra macrotheca** (Cr.) Sacc. *Sphæria macrotheca* Crouan 902
Finist. p. 24. — Peritheciis sphæroideis, 1-2 mill. diam., brunneo-

virentibus, reticulatis, ostiolo apice paullulum incrassato; ascis oblongis, crassis (placenta hexagono-cellulari oriundis), octosporis; sporidiis ellipsoideis, majusculis, initio flavis, dein brunneis, circulo hyalino obvolutis.

Hab. in fimo vaccino vetusto, cum *Splachno ampullaceo*, Finistére (Gallia).

COPROLEPA Fuck. Symb. p. 240 (Etym. *copros*, fimus et *lepos* cortex). — Perithecia crusta stromatica effusa, crassa, extus tomentosa immersa, ostiolo papillæformi, atro, cum perithecii superiori parte prominulo, majuscula, globosa, intus atra. Conidia in tomenti hyphis, minuta, globosa, fusca. Asci cylindracei, stipitati, 8spori. Sporidia oblique monosticha, ovoidea, continua, opaca, circulo hyalino circumdata. Paraphyses lineares, multiguttulatæ.

1. **Coprolepa fimeti** (Pers.) Sacc. *Sphæria fimeti* Pers. Syn. 64. *Hypocopra fimeti* Pers. Fr. Summ. Veg. Scand. p. 397, nec Fuck. *Sordaria fimeti* Wint. Sord. 14, t. VII, f. 3. — Peritheciis confertis, immersis, dein emergentibus, sub crusta cinerea vel nigra, tenui, ovoideo-sphæroideis, glabris in rostrum breve, late conoideum, subobliquum attenuatis; ascis cylindraceis, brevissime pedicellatis, 8sporis, 147 ≃ 17 p, sporif.; sporidiis oblique monostichis, ellipsoideis vel sphæroideo-ellipsoideis, fuscis, opacis, 18–20 ≃ 10–12 strato hyalino obvolutis. 903

Hab. supra fimum vaccinum et equinum, in Suecia, Fennia, Germania, Tyrolia, Belgio, Gallia, Britannia et Amer. bor. — Var. canina Karst. Sporidiis sphæroideo-ellipsoideis, fuscis, opacis, 18–26 ≃ 14–16. — In fimo canino æstate et autumno passim in Fennia.

2. **Caprolepa merdaria** (Fr.) Fuck. Symb. p. 240. *Sordaria merdaria* Fr. Awd., Wint. Sord. p. 13, t. VII, fig. 1. *Sphæria merdaria* Fr. Elench. II. 100. — Peritheciis stromate crustaceo nigro totaliter vel semiimmersis, majusculis, globosis, 700–800 μ. diam., pauci-aggregatis, extus albido-griseis, subtomentosis, nucleo atro-fuligineo mucoso; ostiolo conico brevi matricis superficiem attingente et circum circa zona atra stromatica cincto; ascis cylindraceis, apice obtusiuscule rotundatis, 200–220 ≃ 20–25, subsessilibus sinuosis, paraphysibus filiformibus remote septulatis, duplo longioribus obvallatis, octosporis; sporidiis oblongo-ellipsoideis, utrinque obtusiusculis, 26–36 ≃ 15, primo hyalinis, dein sordide flavis, tandem fuligineis strato hyalino mucoso persistente obvolutis. 904

Hab. in fimo ovino, cuniculorum, asinino etc. in Britannia, Germania, Belgio, Gallia, Italia.

3. **Caprolepa equorum** Fuck. Symb. myc. p. 240. *Sordaria equorum* 905
Wint. Sord. p. 13, t. 7, fig. 2. — Peritheciis immersis, majusculis, in stromate crustaceo-suberoso, intus sordido, extus nigro, fusco-villoso nidulantibus, globosis, circa ostiolum emersis, applanatis, glabris, atris, medio papillatis; villo conidiophoro, conidiis minutis, globosis, fuscis, uniguttulatis; ascis cylindraceis, stipitatis, 8sporis, 200 ≃ 16; sporidiis suboblique monostichis, oblongo-ovatis (ecaudatis), subinæquilateralibus, utrinque rotundatis, atris, simplicibus, circulo hyalino, lato circumdatis, 20-24 ≃ 10. Paraphyses adsunt.

Hab. in fimo equino et capreolino in Germania et Britannia. — Villum conidicum longe lateque repit in fimo et e longinquo dignoscitur.

PHILOCOPRA Speg. in Fungi Arg. Pug. I. in tab. (Etym. *philos* amicus, *copros* stercus). — Perithecia fimo subimmersa, globuloso-conica, glabra v. hirta, membranacea, nigricantia. Asci amplissimi, polyspori. Sporidia polysticha, ovoidea, fusca, ut plurimum hyalino-appendiculata. — Est *Sordaria*, sed ascis polysporis.

1. **Philocopra plejospora** (Wint.) Sacc. *S. plejospora* Winter, Hed- 906
wigia 1871, p. 161. Wint. Sord. p. 29, t. 10, fig. 17. — Peritheciis sparsis, in fimo putrido plerumque totis immersis, usque ad 1 mill. crass., ovato-globosis, primo diaphanis, demum opaco-nigris, junioribus villosis, demum pilis sparsis, fuscis, longiusculis obsitis, ostiolo prominulo, obscuriori, brevi, cylindraceo, obtuso-truncato; ascis lanceolato-clavatis, utrinque acuminatis, subsessilibus, 40-60-sporis, 208-300 ≃ 70-120, p. sporif.; sporidiis farctis, juvenilibus basi appendiculo cylindraceo, curvato, sporidio duplo longiori, maturis elliptico-ovatis, continuis, atro-opacis, 34 ≃ 16 apice appendicula curvata, hyalina, sporidium æquante, basi appendicula primo oblongo-rotundata, demum lacerata, hyalina, mox decidua, sporidium duplum æquante.

Hab. in fimo equino vetusto Lipsiæ, Ems, Kirchdorf (Germania), Colfosco et Selva (Ital. bor.). — « Appendicula superior 15 ≃ 5. inferior 45 ≃ 7-8 ».

2. **Philocopra setosa** (Wint.) Sacc. *Sordaria setosa* Wint. Sord. p. 907
33, t. 10, fig. 18. — Peritheciis sparsis v. gregariis, subglobosis, basi pilis pallidis cinctis, nigris, in ostiolum breve conicum sæpe

curvatum nigro-setosum attenuatis, 465 ≃ 378 (cum collo); ascis cylindraceis apice attenuatis, breve pedicellatis, 238 ≃ 45, paraphysatis, 128-sporis; sporidiis ovoideis, olivaceo-fuscis, 17-19 ≃ 10-12, apice appendice hyalina recta sporidio breviori, infra cauda sporidium subæquante hyalina auctis.

Hab. in fimo anserino Leipzig, Eisleben, Germania.

**Ph. tarvisina* (S. setosa Mich. I. 228). — Peritheciis immersis e globoso pyriformibus, majusculis in ostiolum crassum, breve et circum circa undique penicillato-setulosum productis; ascis fusoideo-subnaviculariibus, in stipitem brevem attenuatis, apiceque acutatis, 300 ≃ 70-75, aparaphysatis (?), 100-128-sporis; sporidiis ellipsoideis, 25 ≃ 15, opace fuligineis, caudis duabus deciduis hyalinis ornatis, inferiore longissima, 55 ≃ $2^1/_2$, superiore parvula, 15 ≃ $2^1/_2$, curvulaque. — In fimo vaccino et equino, Conegliano, Colfosco et cuniculorum, Selva (Ital. bor.).

3. **Philocopra curvicolla** (Wint.) Sacc. *Sordaria curvicolla* Wint. 908
Sord. p. 34, tab. 10, fig. 19. — Peritheciis sparsis, immersis ovatis, fuscis, pilis sparsis, hyalinis obsitis, $^1/_2$-$^3/_4$ mill. altis; collo crasso curvo apice setoso, erumpente; ascis ovato-saccatis, 250-300 ≃ 100, vertice obtusatis, basi breve crasseque attenuato-stipitatis, paraphysatis, 100-140-sporis; sporidiis ellipsoideis, 14-18 ≃ 9-12, atro-cyaneis, dein opace fuligineis, caudâ minusculâ, 10-15 ≃ $2^1/_2$-$3^1/_2$, hyalinâ auctis.

Hab. in fimo murino, Œderan (Saxonia), cuniculorum, Selva (Italia boreali).

4. **Philocopra platensis** Speg. Fungi Arg. IV, n. 130. — Peritheciis 909
immersis v. semiimmersis, subglobosis, 350-400, olivaceo-atris, glaberrimis, membranaceis, contextu angulose parenchymatico, fusco-olivaceo, ostiolo papillato subcarbonaceo, parvulo, lateraliter ac suboblique 1-3 fasciculis setiformibus ornato; fasciculis erectis subcylindraceis, sursum attenuato-acutatis, 150-250 ≃ 20-40, ex hyphis rectis exilibus, 2-2,5 μ. diam.; simplicibus, conglutinatis, olivaceo-fuligineis compositis; ascis paucis, sæpius 5-9, ellipticis, sursum varie rotundatis, deorsum breve crasseque pedicellatis 180-220 ≃ 90-110, aparaphysatis, 60-84-sporis; sporidiis dense conglobatis, ellipticis, utrinque obtusiusculis, 20-22 ≃ 15-17, fuliginis, deorsum cauda parvula 10-12 ≃ 3-4, cylindraceo-clavulata, hyalina ornatis.

Hab. in fimo vetusto Caviæ leucopygæ in paludibus secus el Rio de la Plata, Barracas de Sur, Argent. Am. austr.

5. **Philocopra similis** (Hans.) Sacc. *Sordaria similis* E. C. Hans. Champ. sterc. Dan. p. 23, t. VIII, f. 1-3. — Peritheciis pyriformibus, sparsis, subimmersis, $^1/_2$-$^3/_4$ mill. alt.; ostiolo cylindraceo nigro pilis septatis patulis vestito; ascis longe stipitatis, fusoideis, apice rotundatis, 16-sporis; paraphysibus articulatis ascos subæquantibus obvallatis, 108-200 ≃ 40-60 p. sporif.; sporidiis oblongo-ovoideis, olivaceo-fuligineis, 27-34 ≃ 17-18, caudâ brevi hyalinâ basi auctis. 910

Hab. in fimo ovino vetusto, Rudersdal, in Selandia (Dania).

6. **Philocopra canina** (Peck) Sacc. *Sphæria canina* Peck. Rep. on the state Mus. — Peritheciis minutis, sparsis, gregariisve subglobosis, fusco-rubiginosis, dein nigricantibus; ascis crassis, oblongis v. fusoideis; sporidiis numerosis, ellipsoideis, dilute coloratis, 6,5-8 μ. longis. 911

Hab. in fimo canino, Bethlehem, Amer. bor.

7. **Philocopra myriospora** (Crouan) Sacc. *Sordaria myriaspora* Cr. Finist. p. 22. — Peritheciis immersis sphæroideis, reticulatis, albidis, 1 mill. diam., ostiolo recto, obtuso, brevi, nigro; ascis crassis, subclavatis, polysporis; sporidiis 80-100, ovoideis, brunneis, utrinque appendicula obtusa v. acuta auctis. 912

Hab. in fimo vaccino, Finistère (Gallia). — Perithecia penitus fere fimo immersa; ostiola tantum emergentia.

8. **Philocopra multifera** (B. et Rav.) Sacc. *Sphæria multifera* B. et Rav. North Amer. Fungi n. 914. — Minuta nigra subglobosa; ascis brevibus polysporis farctis; sporidiis subglobosis, 6-7 μ. long. 913

Hab. in fimo vaccino in Pensylvania (Amer. bor.).

9. **Philocopra dubia** (Hans.) Sacc. E. C. Hans. Champ. sterc. Dan. p. 23, t. VIII, fig. 48. — Peritheciis oblongo-pyriformibus, viridi-nigricantibus, verruculosis, 1-1$^1/_2$ mill. alt. sparsis, liberis; ostiolo cylindraceo; hyphis mycelii repentibus; ascis stipitatis fusoideis, 204-280 ≃ 36-52 p. sporif.; 16-sporis; sporidiis ovoideis, olivaceo-nigricantibus, 27-34 ≃ 15-19, utrinque appendicibus, sporidio ut plurimum multo longioribus hyalinis auctis. 914

Hab. in fimo vaccino et ovino, Ribe (Dania). — Appendices sporidiorum striatulæ, superior crassior.

10. **Philocopra zygospora** (Speg.) Sacc. *Sordaria zygospora* Speg. Mich. I, 227, F. it. t. 618. — Peritheciis gregariis superficialibus, v. basi fimo insculptis, ovato-pyriformibus, 400-450 alt., 200-220 cr., in collum breve truncatum desinentibus, undique hyphis fuligineis, 3 micr. cr. non septatis strigose vestitis; contextu paren- 915

chymatico atro-fuligineo; ascis cylindraceis, 300 ≃ 40, deorsum longiuscule attenuato-stipitatis, vertice obtuse rotundatis, crassiuscule attenuato-stipitatis, vertice obtuse rotundatis, crassiuscule tunicatis, paraphysibus filiformibus obvallatis, duodecim-sporis; sporidiis distichis, ovato-ellipsoideis, basi truncatulis, 40 ≃ 20-25, opace fuligineis, interdum 1-2-guttatis, filamento longissimo, 70-100 ≃ 5-6, hyalino, vermiculari, subtortuoso, per paria longitudinaliter connexis.

Hab. in fimo vaccino vetusto udo, Conegliano (Ital. bor.), rarissime. — Forma prædistincta atque singularis, a ceteris deflectens. Filamentum quandoque utrinque fuscidulum.

ROSELLINIA De Not. Cenno Pir. in Giorn. Bot. ital. II. 334 (1847) (Etym. a Doct. *F. P. Rosellini*, pisano, Botanices cultori). — Perithecia subsuperficialia, globulosa, papillata, subcarbonacea, nigra, glabra v. hirta, v. byssiseda. Asci cylindraceo-clavati, paraphysati, octospori. Sporidia globoso-ovoidea v. cymbiformia, fusca, mutica v. appendiculata. — Fungi saprogeni, sed non (nisi rarissime) fimicolæ.

I. *Eu-Rosellinia:* peritheciis majoribus, non setosis, typice bysso insertis.

1. **Rosellinia aquila** (Fr.) De Not. Sfer. ital. p. 21, t. 18, Sacc. Fungi ital. t. 586, *Sphæria aquila* Fr. S. M. II, 442. — Peritheciis gregariis v. dense confertis, globosis firmis 1 mill. diam., quandoque obscure concentrice sulcatis, vertice sæpe depressis, papillatis, fusco-atris, e subiculo tomentoso fusco persistente emergentibus; ascis teretibus, longiuscule stipitatis, p. sporif. 120 ≃ 10, octosporis; sporidiis submonostichis ovato-cymbiformibus, inæquilateralibus, 16-22 ≃ 6-7, fuligineis, muticis v. appendicula minima hyalina auctis. — Stat. conidioph. sistit *Sporotrichum fuscum.* 916

Hab. in corticibus, lignisque in tota Europa, Amer. austr. et bor., Asia austr. — Subiculum late effusum, adnatum, e tomento delicato laxe contextum; perithecia magna, subiculo primo tecta subvillosa, mox semiemersa, glabra, bicorticata, papilla acutiuscula nigra. Obturaculum jodi ope cœrulescit. — Var. *glabra* (Hypoxylon globulariforme Fuck.). Peritheciis, bysso fere carentibus, nitidulis; ascis cylindraceis, p. sporif. 100 ≃ 9; sporidiis ovato-oblongis, 15-17 ≃ 8-9, 1-2-guttatis, fuligineis. — Var. *byssiseda* Tode. Peritheciis sparsis depresso-globosis firmis papillatis cine-

reis, subiculo interrupto fibroso griseofusco insidentibus; fructificatione eadem. Nascitur utraque varietas hinc inde cum specie.

2. **Rosellinia Corticium** (Schw.) Sacc. *Sph. Corticium* Schw. Carol. infer. n. 173, *Sord. aquila* β. Fr. S. M. — Subiculo orbiculari rufescente; peritheciis sub-solitariis, ostiolo impresso; ascis..... sporidiis cymbiformibus, 33 μ. long. (sec. Berk.). 917

Hab. in ramis Quercus et Castaneæ in Carolina superiore et New York (Schwein., Lév.).

3. **Rosellinia thelena** (Fr.) Rab. Fung. europ. ed. II, 747, Sacc. Fung. ital. t. 587. — Peritheciis discretis gregariis vel dense confertis, subiculo superficiali, laxe adhærenti, dense contexto, subglabrato, tenui, demum evanescenti, fusco-purpurascenti insidentibus, sphæroideis, lævibus, fragilibus, glabris, fusco-atris, latit. circiter 1 mill. «ostiolo sensim et acutissimo conoideo»; ascis e basi tenuata teretiusculis, apice plerumque nonnihil incrassatis jodoque intense cœrulescentibus, 100–160 ≃ 9 p. sporif., sporidiis octonis, monostichis, oblique oblongatis, utrimque obtuse attenuatis, hyalino-appendiculatis, rectis, guttulis 1-2 præditis, fuscis, 18–24 ≃ 6,5–7,5; paraphysibus coalescentibus. 918

Hab. in ramis corticatis et decorticatis arborum variarum in tota Europa, sed parce, — Sporidiorum appendiculæ teretes, curvulæ, 8–10 ≃ 2–3, hyalinæ. *R. andurnensis* Ces. ab hac vix differt. E contra *R. thelena* Ces. videtur *R. aquilæ* propior.

4. **Rosellinia andurnensis** Ces. et De Not. Sfer. ital. p. 19, t. XVII. — Peritheciis gregariis superficialibus, subiculo filamentoso fusco insidentibus, globosis, acute breve papillatis, fragilibus; ascis cylindrico-clavatis, copiose paraphysatis; sporidiis oblique monostichis, oblongo-navicularibus, ut plurimum utrinque acutissimis, fuligineis (rarius obtusiusculis et hyalino appendiculatis), 30–35 μ. long. 919

Hab. in truncis variis muscosis in Pedemonte (Italia boreali). — Sporidiis plerumque utroque polo acutissimis longioribusque, peritheciis vertice minus acutis etc. a *Ros. thelena* satis differre videtur.

5. **Rosellinia Buxi** H. Fab. Sphér. Vaucl. p. 78, t. I, fig. 6. — Peritheciis dense confertis, subiculo byssoideo, atro, rigidiusculo, hirtello nidulantibus, conico-globosis, vertice tenue papillulatis, carbonaceis, fragilibus, $^1/_2$ mill. diam.; ascis cylindraceis, 8-sporis, breve stipitatis, 190 ≃ 10; sporidiis imbricato-submonostichis, oblongo-fusiformibus, plerumque leniter inæquilateralibus, initio pellucidis, pluriguttatis, dein opacis, atris, 22–36 ≃ 6–7, 920

Hab. ad basim putrescentem Buxi sempervirentis, Vaucluse (Gallia). — A *R. thelena* sporidiis muticis etc. differt.

6. **Rosellinia Morthieri** Fuck. Symb. Myc. p. 148. — Peritheciis sub- 921
sparsis, *Rosellinicæ aquilæ* forma magnitudineque sed vertice magis applanatis, minute conico-papillatis, fusco-pulveraceis, demum vertice glabris, nitido-fuscis, in massa grumosa, subtomentosa, candida, persistenti, erumpenti, orbiculari oblongave, determinata, conidiophora semiimmersis; conidiis ovato-globosis, minutis, circ. 4 μ. diam., hyalinis; ascis elongatis, 8sporis; sporidiis oblongis, utrinque attenuatis, rectis curvatisque, 2-3guttulatis, monoplastis, atrofuscis, 20 ≃ 6.

Hab. in ramis corticatis Hederæ Helicis in Jura (Helvetia), Coryli, Kirchdorf (Bavaria superiore).

7. **Rosellinia Desmazierii** (B. et Br.) Sacc. Fungi ital. t. 393, *Sph.* 922
Desmazierii B. et Br., Cooke Handb. p. 854, Curr. Simpl. Sph. tab. 57, fig. 2. — Peritheciis majusculis, globoso-conoideis, dense gregariis, usque $1^1/_2$ mill. diam. subiculo pannoso-setoso conidiophoro insidentibus; ascis cylindricis prælongis, stipitatis, 300 ≃ 10, stipite 80-100 μ. longo, apice tunica conspicue incrassata rotundatis, paraphysibus filiformibus ascos superantibus, guttulatis obvallati, octosporis; sporidiis laxe recte monostichis, anguste fusoideis, curvulis, 38-45 ≃ 8, utrinque obtusiuscule attenuatis, regulariter 7-9-guttatis, fuligineis. — Subiculum sistit *Graphium Desmazierii* Sacc. Fungi ital. t. 394, setoso-velutinum, fuligineum; stipitibus erectis, 450 ≃ 40, ex hyphis pluribus septulatis fuscis conflatum, hyphis superioribus expanso-paniculatis, ramulosis, subhyalinis, ramulis minute flexuoso-denticulatis conidiophoris; conidiis ovoideis, 3-4 ≃ 2-$^1/_2$, hyalinis.

Hab. in basi putrescente trunci Philadelphi, Betulæ, Corni etc. in Britannia, Gallia, Italia. — Magna et nobilis species. Ascorum obturaculum jodi ope cærulescit.

8. **Rosellinia bunodes** (B. et Br.) Sacc. *Sph.* (*Byssisedæ*) *bunodes* B. 923
et Br. Fungi of Ceylon n. 1088, t. VIII, fig. 38. — Peritheciis magnis; 2 mill. diam., globosis verrucosis e strato strigoso oriundis; sporidiis maximis fusiformibus, apicibus elongatis acutissimis, multinucleatis.

Hab. in ligno putri, Peradeniya (Ceylon). — Mycelium ex hyphis fasciculatis fuscis, articulatis, ramosis, sursum pallidioribus constans; conidiis moniliformi-catenulatis 4-5 μ. long.; asci luminis apice capitato-foveolati.

9. **Rosellinia Beccariana** Ces. Note bot. p. 12, t. II, A. — Peritheciis subiculo fuligineo dein crustaceo, scabro insidentibus, stipatis sed omnino distinctis, in genere maximis, $2^1/_2$ mill. alt., $3^1/_2$–$4^3/_4$ mill, in diametro, crustaceis, e fuligineo-nigris, levigatissimis, pulchre tornatis, obverse pyriformibus, vertice areola lata depressa, papilla centrali conica acutiuscula umbonato; cortice carbonaceo sat rigido, $^1/_3$ mill. crasso, senio facile fragili; gleba sporidiifera e rufo brunnea; paraphysibus atque ascis, ob fructificationem quam maxime peractam, nullis visis; sporidiis fuligineis, quadantenus pellucidis, anguste lanceolatis, cylindraceis, interdum fere curvulis et paullisper asymmetricis, utrinque acutis et calcaratis appendiculis opacis, rigidis, pro more rectis, acutissime subulatis, 50–60 = 6, sine appendiculis 36–40 longis, episporio sat tenui; guttulis v. nucleolis nullis. 924

Hab. in insulæ Borneo territorio Sarawak, ad corticem non determinandum, anno 1865 legit nob. vir Od. Beccari, florentinus. — Præcedente paraffinis, nisi varietas.

10. **Rosellinia subiculata** (Schw.) Sacc. *Sph. subiculata* Schw. Car. n. 175, Fr. S. M. II, 443, Curr. Simpl. Sphær. n. 221, t. 57, f. 9, *Hypoxylon subiculosum* Berk. North Amer. Fungi p. 162. — Peritheciis confertis hemisphæricis papillatis atris, subiculo floccoso-furfuraceo sulphureo insidentibus; ascis.....; sporidiis ellipsoideis, subnavicularibus, binucleatis, fuligineis, 10 μ. longis (12–13 μ. sec. Berk.). 925

Hab. in lignis cariosis Liriodendri, Quercus etc. in Carolina, Amer. bor. — Subiculum longitudinaliter effusum, tenue, pulveraceum, floccis vix conspicuis intertextum, in ambitu album; subinde evanescens, sed basis sulphureo-pulverulenta; perithecia majuscula, in serie elongata sparsa, glabra, lævia, nuda, superficialia. — A *R. aquila* differt peritheciis minoribus, depressioribus, magis atris.

11. **Rosellinia leprantha** (Fr.) Sacc. *Sph. leprantha* Fr. Nov. Symb. 131. — Peritheciis hemispærico-globosis congestis connatisque lævibus glabris atris, subiculo floccoso-leproso fusco-atro impositis, ostiolo papillæformi in areola minuta submarginata prominulo; ascis longe pedicellatis lineari-clavatis; sporidiis ellipsoideis, continuis, fuscis. 926

Hab. ad cortices dejectos in insula Nikobar Oceaniæ (Didrichsen). — *R. aquilæ* et *R. mammiformi* affinis.

12. **Rosellinia aucklandica** Rabh. Hedw. 1878, p. 115. — Stromate 927

confluenti-expanso, subtomentoso-pannoso, nigricante, perithecia plus minusve obtegente; peritheciis solitariis subsparsis, opaco-atris, ostiolo subconico prominulo nitidulo, nucleo griseo-albo; ascis linearibus brevi-stipitatis, paraphysibus filiformibus ascos superantibus obvallatis; sporidiis ovato-subfusiformibus, uniseriatis rectis, utroque polo acute acuminatis, guttulatis, fuscis, 22 ≃ 10-12.

Hab. in cortice putri, Aucklandia, Oceaniæ (H. Krone).

13. **Rosellinia pyxidella** Ces. Note bot. p. 14, t. II, D. — Peritheciis 928
minutis, 1/3 mill. diam., 1/4 mill. alt., dense aggregatis, contextu passim vesiculoso, villo brevissimo crispulo rufo ex toto obductis et e tapeto concolori tenuissimo assurgentibus, cylindraceis, vertice plano areolam nudam rubeolam sistente, papilla conica operculi modo decidua; paraphysibus copiosisis filiformibus, guttulatis, 130 long.; ascis e clavato cylindraceis, stipitatis 120 ≃ 8, membrana tenuissima; sporidiis octonis, monostichis, subnavicularibus, acutiusculis, ecalcaratis, 14 ≃ 5-6, 1-guttulatis, olivaceis.

Hab. Vercellis, ad Rubi cujusdam sarmenta diu humi strata. — Tota peritheciorum forma et magnitudine verticeque rubeolo *Massariam rhodostomam* (A. S.) simulat (Ces.).

14. **Rosellinia sepulta** (B. et C.) Sacc. *Sph.* (Byssisedæ) *sepulta* B. 929
et C., Cuban Fungi n. 845. — Hyphasmatis effusi fibris non aculeatis; peritheciis parvis, immersis; sporidiis magnis, subfusiformibus, 50 μ. longis.

Hab. in stipitibus palmarum in Cuba et Venezuela. — Habitus *Chætosphæriæ acanthostromæ.*

15. **Rosellinia Tetradeniæ** (B. et Br.) Sacc. *Sph.* (Byssisedæ) *Tetra-* 930
deniæ B. et Br. Fungi of Ceylon n. 1094. — Mycelio repente e fibris tenellis septatis; peritheciis globosis, subliberis; ascis ovatis brevibus; sporidiis oblongo-ellipticis, 40 μ. longis.

Hab. in ramis Tetradeniæ.

16. **Rosellinia subænea** (B. et C.) Sacc. *Sph.* (Byssisedæ) *subænea* 931
B. et B. Cuban Fungi n. 848. — Aggregata, e stromate fusco oriunda; peritheciis globosis, coffeatis, ostiolo papilliformi minuto; sporidiis breviter subcymbiformibus, 12-13 ≃ 5.

Hab. in corticibus emortuis in Cuba.

17. **Rosellinia immunda** (B. et C.) Sacc. *Sph.* (Byssisedæ) *immunda* 932
B. et C. Cuban Fungi n. 846. — Gregaria; hyphasmate parco atro; peritheciis globosis, floccis aterrimis depressis vestitis; ostiolo papilliformi emergente; sporidiis monostichis, 35-45 μ. longis, hinc acutioribus, magnis, cymbiformibus.

Hab. in truncis in silvis opacis, Cuba.

18. **Rosellinia bothrina** (B. et Br.) Sacc. *Sph.* (Byssisedæ) *bothrina* B. et Br. Fungi of Ceylon n. 1090. — Peritheciis in foveolis mycelii sitis; sporidiis fusiformibus acutissimis, 45 μ. long. 933

Hab. in truncis in Ceylon. — Ob sporidia *R. Desmazierii* accedit, ceterum diversa.

19. **Rosellinia emergens** (B. et Br.) Sacc. *Sph.* (Byssisedæ) *emergens* B. et Br. Fungi of Ceylon n. 1089. — Peritheciis sero e mycelio velutino emergentibus; ostiolo prominulo; ascis clavatis, lumine apice capitato; sporidiis maximis fusiformibus, 60–62 μ. long., tunica obtusissima instructis; paraphysibus tenuibus. 934

Hab. in fragmentis ligneis in Ceylon.

20. **Rosellinia Marcucciana** Ces. Note bot. p. 13, t. II, B. — Peritheciis e minoribus, vix $^1/_3$ mill. alt. et cr., e subiculo tenuissimo subcorticali ligno matricis innato per rimas corticis erumpentibus, ceterum omnino denudatis, cæspitosis, depressiuscule globosis, acute papillatis, atris, sat nitidis, lævibus; ascis paraphysibus copiosis, filiformibus simplicibus guttulatis obvallatis, cylindraceis, 160 ≃ 8–10, stipitatis, stipite filiformi dimidium longitudinis enuntiatæ metienti, vertice obtuso sed vix incrassato; sporidiis 8, olivaceis, oblique monostichis, ovalibus e facie, sublunatis e latere, utrinque pro more obtusiusculis, ecalcaratis, 1-guttulatis, 18–20 ≃ 8. 935

Hab. in ramulis Fici Caricæ exsiccatis, Ogliastri, Sardegna (E. Marcucci); in ramis emortuis, Jura (Duby); Andorno Italiæ borealis (Cesati).

21. **Rosellinia ignobilis** Ces. Myc. Born. p. 22. — Subiculo brunneo, e granulari tomentello, tenui, effuso; peritheciis aggregatis, minutis, globosis, asperulis?; ostiolo punctiformi; ascis linearibus diffluentibus; sporidiis uniserialibus, ovoideo-cymbiformibus, 4 ≃ 2, fuligineis. 936

Hab. ad lignum putrescens, sordibus jam obrutum, Sarawak (Borneo).

22. **Rosellinia papaverea** (B. et Br.) Ces. et De Not. *Sphæria papaverea* B. et Br. Brit. fungi n. 612, t. 6, fig. 14. Cooke Handb. n. 2597. — Subaggregata; peritheciis globosis, areolatis, velo albido, excepto ostiolo, tectis; ostiolo crasso, plano, orbiculari, radiatim sulcato, poro rotundo; ascis linearibus; sporidiis ellipsoideo-subnavicularibus, fuligineis. 937

Hab. in truncis putridis, Bathèaston (Britannia). — Late effusa subiculo brunneo inserta; ostiolum stigmatis Papaveris æmulum.

II. *Calomastia:* peritheciis grandiusculis non setosis, subiculo subnullo.

23. **Rosellinia mammiformis** (Pers.) Ces. et De Not. in Comm. soc. critt. ital. I. 227. *Sphæria mammiformis* Pers. Syn. p. 64. *Sph. brachystoma* Wallr. Fl. crypt. n. 3897. *Hypoxylon mammiforme* Berk. N. Am. Fungi. — Peritheciis gregariis, interdum conglomeratis vel confluentibus, superficialibus, sphæroideis, ostiolo papilliformi, lævibus, opacis, glaberrimis, tenuibus, non collabentibus, facile laceratis, atris, latit. 0,5–0,9 mill.; ascis e basi attenuata teretiusculis, apice plerumque nonnihil incrassatis, jodoque cœrulescentibus, 90–140 ≃ 9–10; sporidiis octonis oblique monostichis, oblongatis, inæquilateralibus, 1–2-guttulatis, fuscis, 20–25 ≃ 7–9, utrinque hyalino-appendiculatis, appendicula supera 6–7 ≃ 7, inferiore 10–12 ≃ 2; paraphysibus filiformibus, coalescentibus. 938

Hab. in lignis ramisque variis in Suecia, Germania, Fennia, Belgio, Britannia, Gallia, Italia, Amer. bor., Nova Zelandia, Ceylania. — Inter *R. mastoideam* meam (F. It. t. 589 sub *R. mammiformi*) et *R. thelenam* (Fr.) Rabh. (F. It. 587) media, sed huic affinior ob sporidiorum formam et appendices; ab eadem distincta tamen ob peritheciorum formam minus acutam et magnitudinem minorem.

24. **Rosellinia mastoidea** Sacc. Mich. II. 54. *R. mammiformis* Sacc. F. ital. t. 589, nec Pers. — Peritheciis superficialibus, gregariis, globosis, $^3/_4$ mill. diam., levibus, glabris, ostiolo breve exsquisite papillato; ascis teretibus breve stipitatis, 100–115 ≃ 9–10, paraphysibus filiformibus obvallatis, octosporis; sporidiis oblique monostichis, oblongo-ovoideis, 20–22 ≃ 8, utrinque obtusiusculis, muticis, 2-guttulatis, fuligineis. 939

Hab. in ramis putridis dejectis, Romæ (Bagnis), in ramis Rusci, Coryli, Rubi, Vaucluse (Fabre). — A *R. mammiformi* sporidiis muticis præ ceteris distinguitur.

25. **Rosellinia medullaris** (Wallr.) Ces. et De Not. Schema p. 227. *Sph. medullaris* Wall. Fl. crypt. n. 3826. Mont. Pl. cell. Cent. VIII, p. 62. — Peritheciis erumpentibus, magnis, ovato-subglobosis, atris, testaceis, fragilissimis, laxe adnatis, vertice convexo conico-papillatis, extus pulvere fuliginoso delicatissimo obductis spurco-rugulosis, intus massam medullarem grumulosam sphærico-cellulosam candidam (siccando) palpabilem formantibus; ascis.....; sporidiis ovoideis, utrinque subacutis, badiis, circ. 25 ≃ 11–12. 940

Hab. ad radices alneas effossas siccas, rarius in Germania.

— Affinis *R. mammiformi* sec. Mont., et sporidiis crassioribus, muticis diversa.

26. **Rosellinia sublimbata** (Dur. et Mont.) Pass. in Thuem. Contr. Lus. n. 294. *S. sublimbata* Dur. et Mont. Fl. Alg. I, p. 498. — Gregaria, superficialis; peritheciis rigidis atris, basi expansa hemisphærico-truncatis bicorticatis, ostiolo papillæformi; ascis cylindricis sporidia uniseriata oblonga inæquilatera fusca 20 ≃ 10 foventibus. 941

Hab. in culmis Arundinis mauritanicæ, Alger (Durieu) et Donacis, Coimbra, Lusitania (Moller).

27. **Rosellinia pruinata** (Kl.) Sacc. *Sphæria pruinata* Klotzsch in Linnæa 1833, p. 489. Curr. Comp. Sph. n. 37, fig. 37. — Peritheciis globosis effusis, concrescentibus, emersis, albido-pruinatis, intus nigris ostiolis prominentibus, atris; ascis crasse cylindraceis, breve stipitatis, octosporis; sporidiis monostichis, ellipsoideis, 1–4-guttatis, 25 μ. longis. 942

Hab. in cortice interiori arborum, Amer. bor. (Dr. Richardson). — An *Hypoxylon?* Revera *H. serpens* fere æmulatur.

28. **Rosellinia araneosa** (Pers.) Sacc. *Sphæria araneosa* Pers. Ic. et descr. I, p. 24, t. VII, fig. 6 a–h. — Peritheciis globosis, superficialibus, subsolitariis v. sæpius confertis, fragilibus, nigris, papillatis, villo tenuissimo albicante obtectis, intus albidis, majusculis; ascis cylindraceis, paraphysatis, octosporis; sporidiis monostichis, ovoideo-oblongis, inæquilateralibus, fuscis (ex icone Pers. l. c.). 943

Hab. ad ramos decorticatos emortuos in Germania. — *Sphæria* (Lasiella) *araneosa* Pers. (sec. Quel.) prorsus differt.

29. **Rosellinia mutans** (C. et Peck.) Sacc. *Sphæria mutans* C. et P. 29 Rep. on the St. Mus, — Peritheciis majusculis, $^1/_2$–$^3/_4$ mill. d., gregariis v. aggregatis, globosis, papillatis, nigris, initio tomento tenui fusco velatis, dein glabrescentibus, nitidis; ascis cylindraceis; sporidiis monostichis, ellipsoideis, brunneis 10–13 μ. long. 944

Hab. in ligno putri, Tyre in Amer. bor. — Sec. auctores affinis *S. mutabili* Pers.

30. **Rosellinia nitens** Ces. Note bot. p. 13 (1872). *Hypoxylon chalybæum* B. et Br. Ceyl. F. n. 1066 (1873). — Peritheciis gregariis, carbonaceis subiculo pulveraceo opaco, nigrescenti insidentibus, e cylindraceo ovatis, $1^1/_2$ mill. alt., 1 mill. lat., vertice obtuso areola angusta notato, papilla centrali minutissima, piceis, lævigatissimis, nitentibus; ascis.....; sporidiis ellipsoideis, 8–12 ≃ 4–5, fuligineis. 945

Hab. in lignis putridis et corticibus, Borneo (Beccari), Ceylon

(B. et Br.) — Cl. Cesatius distinguit (Myc. Born. p. 17): α). *typica*, peritheciis majoribus in glebas effusas coalitis, singulis hinc inde sparsis (Syn. *Hypoxylon chalybæum* B. et Br.!); β) *congesta*, peritheciis in acervulos convexos (e 7–8 individuis constantes) coalitis; facie magis hypoxyloidea; γ) *minor*, peritheciis dimidio minoribus arctius coacervatis et subiculo densiore obvallatis. Simillima *Hyp. marginato*, et *H. annulato*, sporidiorum dimensionibus differens.

31. **Rosellinia Julii** H. Fab. Sphér. Vaucl. 79, t. I, fig. 7. — Peritheciis superficialibus, sparsis vel parce gregariis, interdum nonnullis coalitis, majusculis, sphæroideis, fragilibus, carbonaceis, opaco-atris, verrucosis, brevissime papillatis; nucleo albo, 1–1½ mill. diam.; ascis cylindraceis, 8-sporis, sat longe et crasse stipitatis, 200–250 ≃ 15; sporidiis monostichis, ellipsoideis, nunc regularibus, nunc inæquilateralibus, utroque polo acutiusculis, opacis, atro-fuscis, 22–27 ≃ 12–14. 946

Hab. ad cortices ramorum putrescentium Quercus cocciferæ, et rarius Quercus Ilicis, Vaucluse (Gallia). — Asci maturi simul et integri ægre reperiuntur.

32. **Rosellinia cellarum** Lamb. Myc. Belg. II. 294. — Peritheciis sparsis v. subaggregatis, subovoideis, nigris, rigidulis, glabris, ostiolo poriformi; ascis tereti-clavatis, octosporis; sporidiis monostichis, cymbiformibus, inæquilateralibus, 2-guttatis, nigricantibus. 947

Hab. in obturaculis subereis lagenarum vino repletarum in cellis, in Belgio (Lamb.). — Sporidia *R. aquilæ* similia.

33. **Rosellinia rhombispora** Sacc. Mich. I, 372. F. ital. t. 334. — Peritheciis subsuperficialibus, sparsis, globulosis, ½ mill. diam., breve papillatis, levibus, carbonaceis, nigris, contextu prosenchymatico fuligineo; ascis..... resorptis; sporidiis rhomboideo-limoniiformibus, utrinque acutiusculis, 25 ≃ 16–18, minute (ut videtur) asperulis, crasse 1-guttatis, opace fuligineis. 948

Hab. in tuberculis putrescentibus erraticis Cyperi esculenti ad ripas fl. Padi prope *Sermide*, in prov. Mantuæ, Ital. bor. (C. Magnaguti-Rondinini). — Forma peculiari sporidiorum facile dignoscenda species.

34. **Rosellinia obliquata** (Somm.) Sacc. *Sphæria obliquata* Somm. Lapp. 213. *Sordaria obliquata* Auersw. — Conferta, atrá; peritheciis globoso-conicis in ostiolum acutiusculum desinentibus, lævibus, lateri adnatis; fructificatione, sec. Auersw. Sordariæ, h. e. phæospora. 949

Hab. in squamis infra superficiem externam strobilorum super exsiccatorum Pini sylvestris per Nordlandiam inferalpinam saltensem (Lapponia) rarius. — Etiam a celeb. Fries ut nova species agnita. Minuta simplex, peritheciis pyriformi-conicis, nitidis. Memorabilis est situ peritheciorum, cum latere non basi affixa sint, qua ex re tota stirps quasi obliquata et adscendens fit.

III. *Tassiella*: peritheciis majusculis, distincte verrucosis, non setosis.

35. **Rosellinia Tassiana** De Not. Sf. it. 19, t. XVI. — Peritheciis majusculis, subsparsis, sphæroideis, basi sæpius subcoarctatis, v. crasso subpedicellatis, verrucosis, pachydermaticis, nigris, intus albidis; ostiolo papillato, zona levi cincto; ascis cylindraceo-clavatis prælongis, octosporis, paraphysibus guttulatis obvallatis; sporidiis ellipsoideis v. subovoideis, utrinque acutiusculis, 25-35 ≃ 14-15, fuligineis, sæpius 1-nucleatis. 950

Hab. in ramis Mori, Siena, Pisa (Italia), Pruni spinosæ, Saintes (Gallia).

36. **Rosellinia callosa** Wint. Hedn. 1874, p. 134. — Peritheciis gregariis superficialibus, media magnitudine, globosis v. pressione mutua angulatis, minutissime papillatis, fusco-atris, opacis, profunde areolato-rimosis, callosis, 1 mill. cr.; ascis cylindricis, longe paraphysatis, octosporis, 80-130 ≃ 14 p. sporif., paraphysatis; sporidiis oblique monostichis v. subdistichis ovato-fusoideis, inæquilateralibus, utrinque rotundatis, muticis, 19-26 ≃ 7-8, opaco-fuligineis. 951

Hab. in cortice duriori Quercus dejecto, prope Lipsiam (Germania). — Affinis *R. Tassianæ*, a qua peritheciis profundius areolato-rimosis, sporidiis minoribus etc. recedit.

37. **Rosellinia megalocarpa** (Plowr.) Sacc. *Sphæria megalocarpa* Plowr. Calif. Sphær, in Grev. VII, 73, t. 120, fig. 1. — Peritheciis superficialibus, magnis, 3 mill. cr., sphæricis, nigricantibus, rugulosis; ostiolis minutissimis, vix prominulis, areola pallidiore cinctis; ascis cylindraceis v. clavatis, 70-130 ≃ 10-15; sporidiis ovoideis, 12-15 ≃ 3-5, initio hyalinis, dein fuligineis, atris, 2-nucleatis; paraphysibus numerosis flexuosis. 952

Hab. in cortice putri Aceris in California. — Perithecia magna, sparsa v. subaggregata et tunc mutua pressione subangulosa.

38. **Rosellinia plicatula** (B. et Br.) Sacc *Sph.* (Cæspitosæ) *plicatula*, B. et Br. Fungi of Ceylon n. 1110. — Fasciculato-congesta; peritheciis atris, collapsis, minute granulatis, plicato-rugosis; ascis 953

clavatis; sporidiis distichis, doliiformibus utrinque leviter attenuatis, nucleo magno 12–20 ≃ 8–10.

Hab. in corticibus, Central province, Ceylon.

39. **Rosellinia moroides** (Curr.) Sacc. *Sphæria moroides* Curr. Linn. Trans. XXII, p. 318, t. 57, fig. 34. Cooke Handb. n. 2601. — Peritheciis minutis, rugosis; ascis tereti-clavatis, stipitatis; sporidiis octonis biseriatis, ellipticis, olivaceo-fuligineis, dein fuscis, 10–12 μ. longis. 954

Hab. in ligno putri in Britannia. — Habitu *Bertiæ moriformi* accedit sed minor, fructuque diversissima.

IV. *Amphisphærella:* peritheciis basi insculptis v. semiimmersis.

(Cfr. *Anthostomella*).

40. **Rosellinia amphisphærioides** Sacc. et Sp in Mycoth. Ven. n. 1274. Mich. I. 352. F. ital. t. 588. — Peritheciis sparsis, basi cortice insculptis, rarius semi-immersis, globosis, $^1/_4$–$^1/_3$ mill. diam., atris, carbonaceis, ostiolo conico-papillato; ascis cylindraceis, 90–120 ≃ 10–12, apice rotundatis, deorsum brevissime attenuato-stipitatis, paraphysibus filiformibus guttulatis obvallatis, octosporis; sporidiis recte v. oblique monostichis, ellipsoideis v. oblongo-ellipsoideis, 20–22 ≃ 10, utrinque obtusiusculis, quandoque inæquilateralibus, non v. 1–2-guttulatis, olivaceo-fuligineis, subopacis. 955

Hab. in cortice duriore Populorum, Vittorio (Ital. bor.) et Vaucluse (Gallia).

41. **Rosellinia protuberans** Karst. Myc. Fenniæ II, 49, Sacc. Fungi ital. tab. 335. — Peritheciis sparsis vel subsparsis, ligno subinnatis, deinde plus minus emergentibus, parte emersa hemisphæricis cum ligno colore fusco-atro tincto concretis, sphæroideis, ostiolo papillato, prominulo, minuto instructis, fusco-atris, fragilibus, 0,5–0,7 mill. lat.; ascis cylindraceis, 78 ≃ 6–8 p. sporif.; stipite 30–40 μ. longo; sporidiis octonis, monostichis, ellipsoideis, subinde inæquilateralibus, 2-guttulatis, fuscis, 10–12 ≃ 5–6; paraphysibus numerosis, coalescentibus. 956

Hab. in ligno salicino in Fennia, in ligno Corni sanguineæ in Italia boreali.

42. **Rosellinia Arausiaca** H. Fab. Sphér. Vaucl. p. 80, t. I, fig. 10. — Peritheciis sparsis, ligno nigrificato semi-insculptis, deorsum globosis, sursum conoideis, rugosiusculis, vertice poro perforatis, $^1/_2$ mill. diam.; ascis cylindraceis, breve stipitatis, 8-sporis, 70–80 ≃ 857

12–13; sporidiis simplicibus, recte monostichis, ellipsoideis, atro-brunneis, tandem opacis, 20–22 ≃ 10–12.

Hab. ad ramos exsiccatos Loniceræ etruscæ circa Orange (Arausium).

43. **Rosellinia mycophila** (Fr.) Sacc. *Sph. mycophila* Fr. S. M. II, 462, Berk. North Amer. Fungi p. 181. — Sparsa, atra, peritheciis hemisphæricis lævibus subinæqualibus, ostiolo papillato; ascis cylindraceis; sporidiis monostichis, ellipsoideis, brunneis. 958

Hab. in Polyporis putrescentibus in Suecia, Pensylvania et Carolina inferiore. — Perithecia superficiali-emersa, fragilia, nitidula, irregularia, quando pluria conferta confluunt; perithecia papillæformia, primo papilla minuta atra tecta, dein hac deciduâ nuda pertusa.

44. **Rosellinia prinicola** (B. et C.) Sacc. *Sph. prinicola* B. et C. North Amer. Fungi n. 909. — Erumpens, subglobosa; peritheciis subtiliter granulatis, perforatis majusculis, obtusis; ascis linearibus; sporidiis naviculari-oblongis, fuscis, monostichis, 12–13 μ. longis. 959

Hab. in ramis Prini verticillatæ in Pensylvania, Am. bor.

45. **Rosellinia canicollis** Karst. Myc. Fennica II, 49. — Peritheciis sparsis, immersis, fragilibus, tenuibus, sphæroideis, fusco-atris, majusculis, 0,7 mill. lat., ostiolo emerso, libero, oblongato v. elongato, crasso, rudi, apice excepto, furfure denso cano v. griseo obtecto, 0,3–0,4 mill. long.; ascis cylindraceis, 170 ≃ 18 p. sporif.; sporidiis octonis, monostichis, oblongatis, utrinque acutis, fuscis, 28–38 ≃ 11–16; paraphysibus filiformibus. 960

Hab. in ligno vetusto ramorum Populi tremulæ in oppido Abo (Fennia). — Lignum, cui innascitur, albicat.

46. **Rosellinia deerrata** (C. et E.) Sacc. *Sph.* (Pertusæ) *deerrata* C. et E. New Jersey Fungi Grev. V. 93. — Sparsa; peritheciis erumpentibus, paucis, globosis, atris; ascis cylindraceis; sporidiis uniseriatis, ellipticis, brunneis, 12 ≃ 7. 961

Hab. in coniferis (*red Cedar* = Junip. virginiana?) in New Jersey, Amer. bor. — Perithecia nonnulla pycnidica, *Monotosporæ* cuidam (conidiis globosis 20 μ. diam. fuscis, hyalino-apiculatis) sæpius adsociata.

47. **Rosellinia mammoidea** (Cooke) Sacc. *Psilosphæria mammoidea* Cooke in Grev. VIII. 67. — Sparsa, denudata; peritheciis subglobosis, ad basim applanatis, atris, glabris, nitidis; ascis cylindraceis; sporidiis ellipticis, continuis, brunneis, 16–18 ≃ 8. 962

Hab. in ligno putri, Wellington, Nova Zelandia (Travers).

48. **Rosellinia marcescens** (B. et C.) Sacc. *Sph.* (Denudatæ) *marcescens* B. et C. Cuban Fungi n. 854. — Gregaria; peritheciis ovatis rugosis, ostiolo papilliformi, lateraliter compressis; ascis linearibus; sporidiis fuscis cymbiformibus, 15–20 ≃ 3,5–4. 963

Hab. in fimo in Cuba. — Perithecia basi hyphis parcis brunneis cincta. — « An *Sordaria?* ».

49. **Rosellinia Gaudefroyi** H. Fab. Sphér. Vaucl. 79, t. I, fig. 8. — Peritheciis sparsis, nonnullisve in cortice duriori semiimmersis, sphæroideis, carbonaceis, rugosiusculis, breve papillatis, 1 mill. d.; ascis cylindraceis, 8-sporis, 200 ≃ 250 ≃ 15; sporidiis oblique monostichis, ovalibus, fuligineis, fere atris, multiguttulatis, 30–34 ≃ 11–13. 964

Hab. in cortice duriori, ad basim truncorum Quercus pubescentis, Vaucluse (Gallia).

50. **Rosellinia inæquabilis** (B. et C.) Sacc. *Sph.* (Pertusæ) *inæquabilis* B. et C. Cuban Fungi n. 852. — Sparsa, erumpens; peritheciis late conicis; sporidiis ellipticis 15 μ. longis, hinc appendiculatis appendicula brevi obtusa. 965

Hab. in truncis emortuis Coffeæ in Cuba. — Dubia quia color sporidiorum indescriptus.

51. **Rosellinia obtusissima** (B. et C.) Sacc. *Sph. obtusissima* B. et C. North Amer. Fungi n. 910, nec Ceylon Fungi n. 853, quæ cfr. inter dubias. — Peritheciis ovatis, fibris ligneis semiimmersis; ostiolo papilliformi; ascis linearibus; sporidiis ellipticis obtusissimis fuscis, uniseriatis 12–14 μ. long. 966

Hab. in ligno putri dealbato in Pensylvauia (Amer. bor.). — *Sph. obtusissima* B. et C. Ceylon Fungi n. 853 diversa est.

52. **Rosellinia Despréauxii** (Mont.) Sacc. *Sph. Despréauxii* Mont. Pl. Cellul. Cent. VIII, p. 125. — Erumpens, simplex, subseriata; peritheciis sphæricis, atris, opacis, apice depressis; ostiolo mammilloso minuto pertuso; ascis (non descriptis); sporidiis maximis continuis ex oblongo cymbiformibus fuscis, 40–50 ≃ 10–15, circulo hyalino initio obvolutis. 967

Hab. in ramis emortuis dejectis in insula Terræ-Novæ (Despréaux). — Habitus *Melanopsammæ pomiformis.*

V. *Coniomela:* peritheciis minoribus, glabris, sæpius dense gregariis.

53. **Rosellinia pulveracea** (Ehrh.) Fuck. Symb. p. 149, Sacc. Fungi ital. t. 591, *Sph. pulveracea* Ehrh., Pers. Syn. p. 83. — Peritheciis confertis, sæpe crustaceo-aggregatis, superficialibus, glo- 968

bulosis, eximie minute tuberculatis, rigidis, glabris, ostiolo impresso dein latiuscule hiante pertuso, atris, vix 0,3 mill. diam.; ascis cylindraceis, basi attenuatis, obturaculo jodo vix cœrulescentibus, 70–100 ≃ 8–11 p. sporif.; sporidiis octonis, oblique monostichis sphæroideo-ellipsoideis vel ellipsoideis, fuscis, 10–12 ≃ 7–9; paraphysibus filiformibus, haud bene discretis.

Hab. ad ligna Quercus, Sorbi, Alni, Betulæ, Fagi, Robiniæ, Populi, Juglandis etc. in tota Europa, America bor. et austr. — Sec. Fuck. *Sph.* (Coniothyrium) *myriocarpa* Fr., stylosporis ovoideis fuscis, est pycnidium.

54. **Rosellinia Millegrana** (Schw.) Sacc. *Sph.* (denudatæ) *Millegrana* Schw. Syn. Amer. bor. n. 1559. — Minutissima, plagis magnis effusa, singulis peritheciis nudo oculo vix distinguendis, sub vitro innumeris seriatim juxta positis, sed non confluentibus, globosis, minute punctato-rugosis, subattenuatis, ostiolis pertusis globulo ascifero magno coronatis; demum intus evacuatis; juniore ætate peritheciis fibris ligni subtectis, demum denudatis aterrimis; ascis (non descriptis); sporidiis late ellipticis, fuligineis, 13–15 μ. longis. (B. et Br.). 969

Hab. non rara ad ligna quercina, Platani, Liquidambaris Bethlehem, Amer. bor. — Plagis longis latisque quasi effiguratis ligna occupans. — Sec. Cooke Handb. n. 2600 esset forma *Rosell. pulveraceæ*, de quo ob perithecii formam diversam dubitandum.

55. **Rosellinia inspersa** (Berk.) Sacc. *Sph. inspersa* Berk. Decad. n. 73. — Conferta et sparsa, minor atra; peritheciis, subglobosis rugulosis, rigidiusculis; ostiolo obsoleto; ascis linearibus; sporidiis ellipticis, brunneis. 970

Hab. in ligno putri, dealbato ubi crustas atra format, Swan River in Australia. — Probabiliter est forma *Ros. pulveraceæ*, nam cl. Berk. l. c. pro hac specie sumit *Melanomma pulverem pyrium*.

56. **Rosellinia rimincola** Rehm Asc. n. 89, Sacc. Fungi Ven. Ser. II, 329, Fungi ital. t. 590, Wint. Diagn. etc. p. 9. — Peritheciis glabris, vix rugulosis, nitidulis, globoso-conoideis; ascis 80 ≃ 7–8 (p. sporif.), stipite 10–15 micr. longo, ima basi noduloso; sporidiis oblique monostichis, ovoideis, 10–12 ≃ 7–8, saturate fuligineis, eguttulatis. 671

Hab. in ramis decorticatis v. in corticis rimis Cytisi, Aceris, Tamaricis in Germania, Italia, Gallia.

57. **Rosellinia Rosarum** Niessl Beitr. 32, t. XV, fig. 35. — Peritheciis gregariis sparsisve lignicolis, vel peridermio tectis, subconoideis vel subglobosis, rostro conico retuso sæpe obliquo, lævibus, coriaceis crassiusculis, siccis fragilibus, rugulosis, atro-fuscis, vix nitidis, 250-300 μ. diam.; ascis lineari-cylindraceis, obtusis seu retusis stipitatis, 8sporis, 56-66 ≃ 5-6 p. sporif.; sporidiis monostichis obovatis a latere visis compressis, disciformibus, olivaceo-fuscis, 8-9 ≃ 4-5, e latere 2-3 μ. cr., nucleo oleoso, paraphysibus crassis, ascos superantibus, guttulatis. 972

Hab. in ramulis denudatis Rosæ caninæ et Cratægi, interdum corticalis, prope Brünn (Moravia).

58. **Rosellinia socia** (De Not.) Sacc. *Sordaria socia* De Not. Recl. in Comm. critt. II. 480. — Peritheciis confertissimis, transverse ad corticem seriatis, peridermate demum decedente, nudis, sphæroideis, vertice papillæformi-ostiolatis, setulis perbrevibus confertis scabris, atris, fragilibus, pachypleuris; ascis teretiusculis, octosporis, cum paraphysibus copiosissimis; sporidiis ellipsoideis, fuligineo-translucidis, primum involucro mucilagineo tectis, demum nudis. 973

Hab. in cortice Cerasi, socia *Calosph. pulchellæ*, Valle Intrasca (Ital. bor.).

59. **Rosellinia etrusca** H. Fab. Sphér. Vaucl. p. 80, t. I, fig. 9. — Peritheciis superficialibus, ligno decorticato, nigrificato insidentibus, carbonaceis, dense confertis, papillatis, amœne mammiformibus, $^2/_3$-$^3/_4$ mill. diam.; ascis non visis; sporidiis ovalibus, opaco-fuscis, nunc regularibus, nunc tenuissime inæquilateralibus, 2-3-guttatis, utroque polo acutiusculis et appendicula brevi, lata, hyalina præditis, 11-13 ≃ 5-6. 974

Hab. ad ramos exsiccatos Loniceræ etruscæ, Vaucluse (Gallia).

60. **Rosellinia catervaria** (B. et Br.) Sacc. *Sph.* (Denudatæ) *catervaria* B. et Br. Fungi of Ceylon n. 1104. — Disseminata; peritheciis globosis opacis ostiolo minuto; ascis linearibus; sporidiis fuscis, ellipticis, 37 μ. longis. 975

Hab. in ligno putri, Central province, Ceylon. — Habitus fere *Leptosporæ spermoidis*.

61. **Rosellinia pandanicola** (B. et Br.) Sacc. *Sph.* (Foliicolæ) *pandanicola* B. et Br. — Peritheciis superficialibus brunneis, hemisphæricis, basi mycelio parco cinctis, in plagas parvas collectis; ascis linearibus; sporidiis ellipticis, 12 μ. longis. 976

Hab. in foliis Pandani odoratissimi, in Ceylon.

62. **Rosellinia apiculata** Sacc. Mich. I. 26, 99, Fungi ital. t. 150. — Peritheciis superficialibus, dense gregariis, carbonaceis, globosis $^1/_3$–$^1/_2$ mill. diam., obtuse papillatis, rugulosis, glabris; ascis cylindraceo-clavatis, deorsum attenuato-stipitatis, 70 ≃ 8–10, p. sporif. 40 longa, aparaphysatis, octosporis; sporidiis distichis v. oblique monostichis, oblongo-ovoideis, 7–9 ≃ 4–$4^1/_2$, 1–2-guttulatis, fuligineis, basi appendicula hyalina obtusa brevi auctis. 977

Hab. in ligno putri quercino in sylva Montello (Ital. bor.). — Habitus fere *R. pulveraceæ* v. *Melanommatis Pulveris pyrii.*

63. **Rosellinia sylvana** Sacc. Fungi Ven. Ser. II, p. 329, Fungi ital. t. 149. — Peritheciis dense gregariis, globosis dein depressiusculis, $^1/_2$ mill. diam., rugulosis, fragilibus, ostiolo minuto papillatis, tomento ex hyphis fuligineis ramoso-intricatis composito insidentibus; ascis cylindraceo-clavatis, 150 ≃ 10–11, longiuscule nodulosostipitatis, paraphysibus filiformibus obvallatis, octosporis; sporidiis monostichis oblongis v. subpyriformibus basi v. utrinque attenuato-truncatis, ibique breve hyalino-appendiculatis, 12–15 ≃ 6, 2-guttulatis, fuligineis. 978

Hab. in ligno putri Alni glutinosæ(?), Selva (Sylva) Treviso, Ital. bor. — Peritheciis dimidia v. tertia parte minoribus a *R. mammiformi* et *R. aquila* etc. dignoscitur. Sporidia initio cylindracea, flexa, granulosa, hyalina, dein sursum incrassata, postremo ut supra descripta.

64. **Rosellinia spadicea** Ces. Myc. Born. pag. 22. — Peritheciis globosis, coffeinis, pulverulentis, demum circa ostiolum glabratis, subiculo tenui velutino concolori stipatim insidentibus; ostiolo punctiformi minutissimo; nucleo albicante; ascis jam reabsorptis; sporidiis ovalibus e fronte, sub-cymbiformibus e latere, fuscis, 6 ≃ 2. 979

Hab. ad calmum Bambusæ(?), Sarawak Borneo.

65. **Rosellinia ulmaticolor** (B. et C.) Sacc. *Sph. ulmaticolor* B. et C. North Amer. Fungi n. 952. — Maculis effusis umbrinis; peritheciis minutis; ascis linearibus; sporidiis ellipticis fuscis, uniseriatis, 7,5–8 μ. long. 980

Hab. in ramis decorticatis levibus in Carolina inf., Amer. bor.

66. **Rosellinia umbrinella** (B. et C.) Sacc. *Sph. umbrinella* B. et C. North Amer. Fungi n. 963. — Peritheciis umbrinis, ostiolo papilliformi nigro; ascis linearibus; sporidiis ellipticis, fuscis monostichis, biguttulatis. 981

Hab. in caule Eupatorii coronopifolii in Carolina inferiore, Amer. boreali.

67. **Rosellinia Verrucaria** (Mont.) Sacc. *Sph. Verrucaria* Mont. in Fl. Alg. p. 526, an Fr. S. M. II. 496. — Gregaria v. subcæspitosa; peritheciis innato-superficialibus, hemisphærico-subconicis, rugulosis, rigidis, astomis (?), extus intusque nigris; ascis cylindricis; sporidiis octonis ellipticis, continuis, opacis, monostichis. 982

Hab. in ramulo delapso Salsolæ oppositfoliæ, Mostaganem (Algeria). — Prorsus diversa a *Melanommate Verrucaria* (De Not.) etsi huic uniendam declaraverit cl. Montagne. Cfr. De Not. Sfer. ital. p. 66.

68. **Rosellinia Winteriana** Speg. Mich. I, 228, Fungi ital. t. 620. — Peritheciis superficialibus vel basi tantum immersis, subglobosis, ostiolo parvulo conoideo, undique glabris, 200–250 micr. d.; contextu subcarbonaceo atro-fusco; ascis cylindraceis, vertice rotundatis, 140 ≃ 10–14 (p. sporif. 80–90 ≃ 10–14, stip. 50–60 longo) basi attenuato-stipitatis, paraphysibus subclavulatis obvallatis, octosporis; sporidiis oblique monostichis, ellipsoideis v. sæpius subnavicularibus, 12–14 ≃ 7–8, utrinque rotundatis, opace atro-fuligineis, guttulatis. 983

Hab. in fimo ovino vetusto in pratis, Conegliano (Italia bor.). — Etsi fimicola potius *Rosellinia* quam *Sordaria* videtur, teste claro Spegazzinio.

69. **Rosellinia arctispora** (C. et E.) Sacc. *Sph.* (Denudatæ) *arctispora* C. et E. New Jersey Fungi, Grevill. V. 93. — Gregaria; peritheciis globosis ad basim applanatis, scabrosis, atris; ascis cylindraceis; sporis anguste ellipticis, brunneis, 15 ≃ 4. 984

Hab. in ramis Andromedæ, New Jersey, Amer. bor. — Cellulæ perithecii exteriores exsilientes, 100 μ. circ. longæ.

70. **Rosellinia microspora** (Ces.) Sacc. *Sordaria microspora* Ces. Myc. Born. p. 22. — Sparsa; pertitheciis conicis e basi passim oblonga, vertice pertuso; ascis subtilibus; sporidiis uniseriatis, ovalibus, fuscis, 50 μ. longis. 985

Hab. ad lignum nudum marcidum, Ceylon, Peradenya.

71. **Rosellinia dispersella** (Nyl.) Karst. Myc. Fenn. II, 48, *Sph. dispersella* Nyl. Herb. Fenn. 112. — Peritheciis sparsis, prominulis, demum liberis, ovoideis vel subsphæroideis, ostiolo papillari, crassiusculo (fere tuberculoso), rigidis, nigris, glabris, mediocribus vel minoribus; ascis cylindraceis, 100–105 ≃ 12–14 p. sporif.; sporidiis octonis oblique monostichis, ellipsoideis, sæpe inæquilateralibus, simplicibus fuscis, 14–25 ≃ 9–13; paraphysibus haud bene discretis. 986

Hab. supra corticem Populi tremulæ crassiorem e Fennia meridionali ad Lapponiam usque.

72. **Rosellinia hypoxylina** Ces. Myc. Born. p. 22. — Peritheciis mi- 987
nutis, globosis, opacis, ostiolo apiculatis; subiculo carbonaceo indeterminato in crustam effusam concrescentibus; ascis?; sporidiis ovoideo-navicularibus, fuscis, 7–7½ ≃ 5.

Hab. ad lignum decorticatum exesum, Sarawak (Borneo).

73. **Rosellinia Pseudo-Bombarda** Sacc. Myc. Ven. Spec. p. 109, t. X, 988
fig. 45–47, Fung. ital. t. 595. — Peritheciis gregariis, superficialibus, ellipsoideis, ½ mill. altis, ⅓ crassis, in ostiolum conico-prominulum sensim desinentibus, atris, nitidulis; ascis anguste cylindraceis, substipitatis, 80–85 ≃ 5, pseudo-paraphysibus filiformibus guttulatis obvallatis, 8sporis; sporidiis oblique monostichis fusoideis, curvulis, 15–16 ≃ 4, lutescenti-fuscis, 2–3-guttulatis.

Hab. in ligno denudato, fracido quercino, Selva agri Tarvisini (Italia boreali). — Perithecia ellipsoidea, interdum obliquata Bombardiam in mentem revocant.

74. **Rosellinia ovalis** Ellis Bull. Torr. cl. VIII, 11 Nov. 1881, p. 125. 989
— Gregaria, v. subcæspitosa; peritheciis ovoideis, rugulosis, ⅓ mill. diam., ostiolo papillato; ascis anguste cylindraceis; sporidiis monostichis, continuis, fuligineis, ellipsoideis vel oblongis, 7–8,5 ≃ 5–6.

Hab. in caulibus (*Sage brush* = Salvia?), New Jersey, America boreali.

75. **Rosellinia microscopica** (De Not.) Sacc. *Sordaria microscopica* 990
De Not. Recl. in Comm. critt. II. 480. — Peritheciis perexiguis, nudo oculo vix conspicuis, sparsis, atris, subrotundato-hemisphæricis, ostiolo papillari, minutissimo hiantibus, læviusculis, in sicco fragilibus; ascis teretiusculis, octosporis; paraphysibus copiosis, tenuibus; sporidiis ellipsoideis, badio-fuligineis, translucidis 5 μ. long.

Hab. in libro denudato ramorum Cerasi, Valle Intrasca (Italia boreali).

VI. *Coniochæta:* peritheciis minoribus, setosis, sæpius gregariis.

76. **Rosellinia ligniaria** (Grev.) Nits. Fuck. Symb. myc. 150, Sacc. 991
Fungi ital. t. 596, *Sph. ligniaria* Grev. Crypt. Sc. I. 82. — Peritheciis gregariis, globulosis, conicisve, nigris, superficialibus, pilis brevibus, unicellularibus, atris laxe vestitis, ⅓ mill. diam.; ascis cylindraceis, stipitatis, 8sporis, 80–96 ≃ 10–12; sporidiis oblique monostichis, oblongo-ovatis, utrinque obtusis, atro-fuscis, monoplastis, continuis, 16 ≃ 8.

Hab. in lignis et corticibus durioribus in Scotia, Belgio, Ger-

mania, Italia, Sibiria, Amer. bor. — Formæ: Fagi sylvaticæ (asci 90–100 ≃ 9; sporidia 18 ≃ 8–8½), Alni glutinosæ (asci 80–90 ≃ 9–10; sporidia 14–15 ≃ 8–9), Salicis purpureæ (asci 80 ≃ 8; sporidia 14–15 ≃ 8), Cupressi (sporidia 14 ≃ 8), Pini (15–17 ≃ 7–8) etc. — Var. *detonsa* Cooke in Grev. (in ramis Andromedæ, New Jersey) differt peritheciis subglabris, sporidiis paulo minoribus.

77. **Rosellinia Niesslii** Auersw. Beitr. p. 35, t. V, fig. 37. — Peri- 992
theciis lignicolis, gregariis, conoideis vel subglobosis, 200–300 μ. diam., ostiolo conico sæpe obliquo confluentibus, membranaceo-coriaceis (fere carnosis) obscure sordide puniceis, brunneis vel nigrescentibus, initio dense, demum sparse et breve pilosis tandem subglabris ostiolo barbato, rugulosis pilis 20–30 μ. longis; ascis cylindricis 110–118 ≃ 9 p. sporif.; stipite brevi obliquo, apice obtuse retusis, 8sporis; sporidiis monostichis oblongo-ovoideis, atrofuscis, circulo hyalino; paraphysibus crassis articulatis guttulatisque ascos vix superantibus.

Hab. in ligno Berberidis vulgaris pr. Gratz (Germania) æstate.

78. **Rosellinia malacotricha** (Auersw.) Niessl Beitr. 36, t. V, fig. 36. 993
Sacc. F. ital. t. 593. — Peritheciis lignicolis gregariis, sæpe densissime confertis, conoideis, seu subglobosis 200–300 μ. diam.; coriaceo-carbonaceis, atris, setis rigidis, 40–70 μ. long., fasciculatis divergentibus atris tectis, ostiolo glabro brevi conico nitente; ascis 8sporis, cylindricis, stipitatis, apice retusis 100 ≃ 9–10; sporidiis monostichis disciformibus, seu ellipticis vel suborbicularibus a latere visis lenissime depressis, 11–14 ≃ 8–10, initio 2-guttulatis luteolis, dein fusco atris, nucleo splendente; paraphysibus ascos vix superantibus guttulatis.

Hab. in ligno denudato Pini silvestris p. Leipzig (Auerswald) et Pini Abietis pr. Liezen, Germania (Niessl); in corticis Salicis pag. interiori in Italia boreali.

79. **Rosellinia sordaria** (Fr.) Rehm Asc. n. 192. F. it. t. 595. *Sphæria sordaria* Fr. S. M. II. 458. *Sordaria* et *Rosellinia Friesii* Niessl Beitr. — Peritheciis, gregariis, sæpe confertis, conoideis seu subglobosis, coriaceis, nigris, nitidis, subtiliter rugulosis, 160–200 μ. diam., setulis obtusis (h. e. cellulis fibrosis perithecii liberatis), 15–20 ≃ 2, continuis fuligineis crebrius circa ostiolum conspersis; ascis cylindraceis, 60 ≃ 4,5–5, stipite brevi curvato, 8sporis; sporidiis monostichis, ovatis, a latere visis lenissime compres- 994

sis, 7–8 ≃ 4–5, initio 4-guttulatis, flavidis, dein opace fuligineis, eguttulatis.

Hab. in ligno fagineo, pineo, quercino, populino in tota fere Europa. — Dimensiones a Niessl datæ l. c. paulo majores quam nostræ. Huc *R. velutina* Fuck. sec. Niessl, pertineret.

30. **Rosellinia hirtissima** (Peck) Sacc. *Sphæria hirtissima* Peck 28 995
Rep. on the St. Mus. — Peritheciis sparsis v. gregariis, superficialibus, ovoideis, v. subglobosis, nigris, pilis rigidulis atris, breviusculis dense vestitis; ascis linearibus; sporidiis uniseriatis, crasse ellipsoideis v. subglobosis, 12–13 μ. longis, fuscis.

Hab. in ligno putri Pini, Center, Amer. bor. — Asci fugaces.

31. **Rosellinia foveolata** (B. et C.) Sacc. *Sph.* (Byssisedæ) *foveolata*, 996
B. et C. Cuban. fungi n. 847. — Late effusa, stromate nigerrimo, floccorum ramulis apice acutis; peritheciis globosis demum collapsis, pilis rigidis ornatis; sporidiis hemisphæricis, foveolatis, 5 μ. d.

Hab. in corticibus putridis in Cuba et in Carol. inf. — Sporidia seminibus («capsulis?») *Veronicæ* similia.

32. **Rosellinia ambigua** Sacc. F. Ven. Ser. II. 328, F. ital. t. 594. — 997
Peritheciis dense gregariis, superficialibus, habitu *Roselliniam pulveraceam* æmulantibus, globoso-conoideis, 120–140 diam., aterrimis, setulis continuis, 20–30 ≃ 3–4, acutis divergentibus undique obsitis, sed densius circa ostiolum brevissime papillatum, denique calvescentibus; ascis cylindraceis, basi attenuatis, 80 ≃ 8, paraphysibus filiformibus obvallatis, 8sporis; sporidiis recte v. suboblique monostichis, ellipsoideis, v. subglobosis, 10–12 ≃ 8, latere compressiusculis, initio viridulis, 2-guttulatis, dein saturate fuligineis, continuis.

Hab. in ramis emortuis Sambuci racemosæ in silva Cansiglio (Ital. bor.). — Affinis *Ros. ligniariæ*, a qua sporidiis brevioribus, *R. abietinæ*, a qua sporidiis crassioribus et *R. malacotrichæ* Niessl, a qua setulis laxioribus, brevioribus, ascis sporidiisque minoribus satis differre videtur. Ex clar. Doct. Winter in litt. *R. ambigua* mea spectaret *R. pulveraceæ*, sed tunc censere cogor eundem virum pro hac alienam speciem sumere.

33. **Rosellinia abietina** Fuck. Symb. myc. p. 150. — Peritheciis gre- 998
gariis confertisque, *Rosellinia pulveracea* parum majoribus, ovatis, in ostiolum conicum, obtusum attenuatis, nigris, opacis, setis brevissimis, concoloribus, strigosis; ascis cylindraceis, 95–110 ≃ 10–12, obturaculo jodo vix cœrulescente, curvato-stipitatis, 8spo-

ris; sporidiis oblique monostichis, oblongis, subellipticis, monoplastis, fuscis, 14–16 ≃ 6–8.

Hab. in ligno Pini et Juniperi in Germania (Fuck.), Fennia et Lapponia (Karst.). — Var. *trichota* C. et Ell. in Gev.; sporidiis ovoideis v. subglobosis 12 ≃ 10; setulis multo longioribus 90 μ. longis. In ligno pineo, New Jersey.

84. **Rosellinia xylarispora** (C. et E.) Sacc. *Sphæria* (Villosæ) *xylariæspora.* C. et E. New Jersey Fungi. Grev. VII, 94, t. 100, fig. 2. — Peritheciis gregariis, atris, velutinis, globoso-compressis, papillatis, pilis 40 μ. long. obtusis; ascis cylindraceis; sporidiis ellipticis, utrinque attenuatis, brunneis, uninucleatis, 16–18 ≃ 6. 999

Hab. in ramis decorticatis Andromedæ, New Jersey, America boreali.

85. **Rosellinia velutina** Fuck. Symb. myc. p. 149. — Peritheciis gregariis confertisque, minutis, globoso-ovatis, subtilissime olivaceo-velutinis, ore minuto, subconico, perforato; ascis cylindraceis, oblique stipitatis, 8sporis, 56–72 ≃ 8; sporidiis oblique monostichis, ovatis, atro-fuscis, 1–2guttulatis, 8 ≃ 6. 1000

Hab. in cortice et ligno Salicis et Ulmi, Hattenheim (Germania).

86. **Rosellinia subcorticalis** Fuck. Symb. myc. p. 150. — Peritheciis sparsis, numquam confertis, punctiformibus, ovatis, in ostiolum brevissimum, conicum, obtusum attenuatis, atris, setis brevissimis, concoloribus, strigosis obsitis, in peritheciis junioribus pilis terminalibus longioribus, fasciculatis, conidiophoris; conidiis oblongis, multiseptatis ut Helminthosporium, 20 ≃ 10, fuscis; ascis cylindraceis, stipitatis, 8sporis, 72 ≃ 8; sporidiis oblique monostichis, ovatis, monoplastis, uniguttulatis, atro-fuscis, 8 ≃ 6. 1001

Hab. in pagina interiore corticis secedentis exsiccati Alni glutinosæ pr. Œstrich et in insulis Rhenanis.

87. **Rosellinia Platani** Fuck. Symb. mycol. pag. 150, — Peritheciis minutis, sparsis, e basi globosa conicis, atris, undique pilis concoloribus, perithecii diametrum subæquantibus obsitis; ascis cylindraceis, stipitatis, 8spori, 80 ≃ 8; sporidiis oblique monostichis, oblongo-ovatis, utrinque attenuatis, oblongo-uniguttulatis, pallide fuscis, 12 ≃ 6. 1002

Hab. in pag. interiore corticis Platani durioris, Hattenheim (Germania).

88. **Rosellinia sanguinolenta** (Wallr.) Sacc. *Sph. sanguinolenta* Wallr. Comp. p. 801, Mont. Pl. Cell. Cent. VIII, p. 58. — Peritheciis 1003

parvis confertis (sub cortice delitescentibus) erectis, præter basim adnatam liberis ovoideis nigris, pilis concoloribus brevissimis stipatis undique hirsutis mucoque cruento obductis, apice ostiolo prominulo nudo pertusis; ascis cylindraceo-clavatis, 120 ≃ 10, apice hyalino-cuspidatis, octosporis, paraphysatis; sporidiis monostichis sphæroideo-oblongis, primo hyalinis, tandem obscure fuligineis.

Hab. sub cortice mox desquamato Loniceræ Xylostei Hercyn. infer. rarissime (Germania).

89. **Rosellinia asperula** Mont. (Sacc.) *Sph. asperula* Mont. Pl. Cell. Cent. VIII, p. 146. — Denudata, sparsa, gregaria sparsimque agglomerata; peritheciis minimis, $^1/_3$ mill. diam., ovoideis, atris, opacis asperulis; ascis inter paraphyses nidulantibus, cylindricis, sporidia octona oblonga sphæroidea, 10 μ. long. continua tandem fuscidula, serie unica, foventibus. 1004

Hab. ad ramos dejectos cortice denudatos circa Brixiam Italiæ (Cesati).

90. **Rosellinia Gagliardi** (De Not.) Sacc. *Sordaria Gagliardi* De Not. Sfer. ital. p. 23, t. 21. — Pusilla; peritheciis sparsis v. gregariis, superficialibus, atris, e basi applanata subglobosis, obtusis, ostiolo minuto vix prominulo hiantibus, aculeolis rigidis fuscis obsitis, siccis vix collabentibus; ascis teretibus, octosporis, paraphysatis; sporidiis ellipsoideis, fusco-castaneis, 10–15 μ. longis. 1005

Hab. in caulibus siccis herbarum Domodossola, Valle Intrasca (Italia bor.). — Peritheciis sphæroideis obtusis, nec ovoideo-conicis a *R. ligniaria* distinguenda.

91. **Rosellinia horrida** Hazl., Frig. Banat 1873, p. 49, t. I, f. 3. — Peritheciis liberis, dense aggregatis, rarius sparsis, obovatis, subcarbonaceis, rugulosis, aculeatis, aculeis subradiantibus atris, sursum pellucidis, e tuberculis oriundis; ascis paraphysatis, cylindraceis, octosporis, 120–150 ≃ 15–16; sporidiis monostichis, 18–25 ≃ 10–13, oblongis, fuscis. 1006

Hab. in sarmentis decorticatis Vitis viniferæ ad Mehadiam (Banatus). — Mycelium, quo perithecia inserta, parcum, hyphis septatis, hyalinis contextum, superficiale; conidiis ovoideis, hyalinis, 2–3 μ. longis.

92. **Rosellinia chordicola** Sacc. Mich. I. 372, Fungi ital. t. 333. — Peritheciis sparsis, subsuperficialibus globoso-conoideis, $^1/_2$ mill. diam., lævibus, nigris, papillatis, circa ostiolum setulis 25–30 ≃ 3, eseptatis, aterrimis ornatis; peritheciis contextu parenchymatico fuligineo; ascis cylindricis, 80–90 ≃ 8, apice rotundatis, breve sti- 1007

pitatis, paraphysibus filiformibus obvallatis, octosporis; sporidiis oblique monostichis, ellipsoideis, 8–10 ≃ 6–7, fuligineis, eguttulatis.

Hab. in chorda putrescente dejecta in Horto Patavino, vere 1877. — A *Rosellinia ambigua* Sacc., peritheciis sparsis duplo majoribus, sporidiis angustioribus, non 2-guttatis, matrice aliena etc. differt.

93, **Rosellinia pachydermatica** (Ces.) Sacc. *Sordaria pachydermatica* Ces. Myc. Born. p. 22. — Peritheciis in macula nigricante effuse aggregatis, parabolicis, nigris, primitus scabris, serius præsertim ad verticem denudatis, pariete crassa carbonacea; ostiolo impresso; ascis linearibus; sporidiis uniseriatis, elongato-ellipticis acutiusculis, simplicibus, fuscis, 5 ≃ 2. 1008

Hab. in ligno marcescente, Etich River, ditionis Sarawak (Borneo).

94. **Rosellinia calva** (Tode) Sacc. *Sph. calva* Tode sec. Quel. Champ. Jura p. 517 (sub *Lasiella*), t. V, f, 30. — Peritheciis globulosis, papillatis, supra glabris, fusco-nigris, nitidis, deorsum pilis rigidulis brevibus conspersis, ostiolo convexo; ascis cylindricis breve stipitatis, octosporis; sporidiis ellipsoideis, 20 μ. long., fusco-olivaceis, 2-guttutis. 1009

Hab. in ligno putri Alni, Pruni spinosæ in Vogesis et Jura.

95. **Rosellinia Hystricula** (B. et Br.) Sacc. *Sph.* (Byssisedæ) *Hystricula* B. et Br. Fungi of Ceylon n. 1092. — Peritheciis e strato hispido oriundis, rugosiusculis, cito collapsis, setis rigidis lanceolatis ornatis; ostiolo minuto; ascis farctis, 75 μ. long. clavatis; sporidiis oblongo-ellipticis, 2-3-nucleatis, 10 ≃ 3,5-4. 1010

Hab. in corticibus in Ceylon. — Habitus *Cœlosphæriæ tristis.*

VII. *Cucurbitula* Fuck., peritheciis cæspitoso-erumpentibus.

96. **Rosellinia conglobata** (Fr. et Fuck.) Sacc. *Sph. conglobata* Fr. S. M. II, 414, *Cucurbitula conglobata* Fuck. Symb. mycol. 171, t. IV, f. 7. — Peritheciis cæspitosis, subglobosis, rugulosis, nigris, ostiolo papilliformi, obsoleto; ascis cylindraceis breve stipitatis 96 ≃ 8, octosporis; sporidiis oblique monostichis, ellipsoideis, 12 ≃ 8, biguttulatis, fuligineis. 1011

Hab. in cortice secedente Betulæ albæ et Coryli in Suecia (Fries), Germania (Fuck.), Jura et Vogesis (Quelet). — Cfr. *Cucurbitaria conglobata.*

97. **Rosellinia Myricariæ** (Fuck.) Sacc. *Cucurbitula Myricariæ* Fuck. 1012

Symb. myc. App. II, p. 32. — Peritheciis ascigeris in corticis rimis cæspitosis, elongato-dispositis, paullulo majoribus quam in fungo stylosporifero et magis regularibus, ovato-globosis, in ostiolum obtuso-conicum demum perforatum, aterrimum protractis, opaco-nigris; ascis stipitatis, cylindraceis, 8sporis, 88 ≃ 8; sporidiis oblique monostichis, forma in eodem asco valde variabili, aliis subellipticis, aliis ovatis vel subrotundis, continuis, fuscis, 10 ≃ 5–8; paraphysibus filiformibus, multiguttulatis; perithecis pycnidicis irregulari-globosis, cæspitulosis; stylosporis ovoideis 10 ≃ 4–6, fuscis.

Hab. in ramis corticatis Myricariæ germanicæ, rarius, Ragaz ad ripas Rheni (Helvetia).

98. **Rosellinia Syringæ** (Kickx) Sacc. *Sph. Syringæ* Kickx Fl. cr. 1013
Fl. I. 337, *Cucurbitula Syringæ* (Kickx) Lamb. Fl. myc. belg. II. 323. — Peritheciis semierumpentibus emersisque, aggregatis, globosis, rugosis, nigris, opacis, glabris, ostiolo minuto granuliformi; ascis cylindraceis; sporidiis monostichis ovoideis, obtusis, continuis, olivaceo-fuligineis.

Hab. in ramis emortuis Syringæ vulgaris, Termonde, in Belgio (Westendorp). — Habitus potius *Cucurbitariæ*.

VIII. *Lichenicolæ*.

99. **Rosellinia Cladoniæ** (Anzi) Sacc. *Sordaria Cladoniæ* Anzi Anal. 1014
lichen. p. 26 — Peritheciis sparsis, atris, minutis, sphæricis, semiimmersis, rugosis, tandem deformibus et cupulari-apertis; ascis 4–6-sporis; sporidiis cymbiformibus, fuligineo-opacis, 22–30 ≃ 13–15.

Hab. in podetiis Cladoniæ deformis senio infuscatis, Valfurva 1800 metr. alt. (Italia boreali).

100. **Rosellinia Nephromatis** (Crouan) Sacc. *Sph. Nephromæ* Crouan 1015
Finist. p. 25. — Peritheciis sphæricis, nigris, ½ mill. diam.; ascis subclavatis, 4-sporis; sporidiis ovoideis, lutescentibus, 2-guttulatis.

Hab. in thallo Nephromatis resupinati, Finistère (Gallia).

101. **Rosellinia aspera** Hazl. in Hedw. 1874, pag. 140, Frig. Banat. 1016
1873, t. III, f. 12. — Peritheciis aggregatis, globosis, ostiolo mammillari, demum pertuso, scaberrimis atris; ascis linearibus, octosporis, paraphysatis; sporidiis ovoideis, demum opacis 19–20 ≃ 12–13, monostichis.

Hab. in thallo Aspiciliæ cinereæ in Alpe Retyezat Transylvaniæ. — Mycelium torulosum, superficiale, dendritice efiguratum, nigrum.

IX. *Sphæropyxis* Bon., peritheciis breviter stipitatis; sporidiis globosis.

102. **Rosellinia hispida** Bon. Abhandl. p. 157 *(Sphæropyxis).* — Peritheciis aggregatis, ovoideis, breviter pedicellatis, pilis brevibus continuis obsitis, ostiolo simplici pertusis; ascis cylindricis, paraphysibus simplicibus obvallatis; sporidiis globosis, fusco-nigris. 1017

Hab, in ligno denudato in Guestphalia (Germania).

X. *Desciscentes v. dubiæ*

103. **Rosellinia rhypara** (B. et Br.) Sacc. *Sph.* (Denudatæ) *rhypara* B. et Br. Fungi of Ceylon n. 1106. — Peritheciis globosis coffeicoloribus, sordidis; ostiolo minuto; ascis linearibus; sporidiis ellipticis, utrinque attenuatis, 22-25 ≃ 10-12. 1018

Hab. in ligno putri in Ceylon. — Dubia quia sporidiorum color non indicatur.

104. **Rosellinia Tulasnei** (Crouan) Sacc. *Sph. Tulasnei* Crouan Finist. pag. 24. — Peritheciis obtuse pyriformibus, nigris, granulosis, $^1/_2$ mill. diam. contextu reticulato; ascis fusoideis, utrinque obtusis, bisporis; sporidiis subfusoideis, fuligineis, granulosis. 1019

Hab. parasitica in Zygodonte viridissimo, Jungermannia dilatata, Cenomyce in truncis arborum, Finistère (Gallia).

105. **Rosellinia Schumacheri** (C. E. Hasn.) Sacc. *Sphærella Schumacheri* E. C. Hans. Champ. sterc. Dan. p. 16, t. VI, fig. 24-27. — Peritheciis sphæroideis, papillatis, nigris, quandoque pilosulis, 130-150 μ. altis, submembranaceis, sparsis, subinnato-erumpentibus; ascis oblongo-ovatis, subsessilibus, aparaphysatis; sporidiis polystichis oblongo-cymbiformibus, inæquilateralibus, 9-10 ≃ 3-4, olivaceo-brunneis. 1020

Hab. in excremento murino et cuniculorum, Bassnäs in Selandia (Dania).

106. **Rosellinia melioloides** (B. et C.) Sacc. *Sph.* (Byssisedæ) *melioloides* B. et C. Cuban Fungi n. 849. — Soris orbicularibus; hyphasmate radiante delicato, demum pulvere cinnabarino plus minus peritheciisque globosis obsitis. 1021

Hab. in pag. infer. foliorum coriaceorum in Cuba. — Pulchra species, sed, ob sporidia immatura, dubia.

107. **Rosellinia plana** (Preuss) Sacc. *Sph. plana* Preuss, in Linnæa XXVI, p. 712 (1853). — Sparsa; peritheciis, umbilicato-depressis, atris; ostiolis nudis, punctiformibus, intus fuscis; ascis clavatis, 1022

quatuor sporas foventibus, sporidiis oblongis, paraphysibus nullis.

Hab. in ligno vetusto, Hoyerswerda (Germania).

108. **Rosellinia prorumpens** Bon. Abhand. p. 151 (*Ascotricha*). — 1023
Peritheciis globosis atris, aggregato-confluentibus, subimmersis, papilla parva conica præditis; ascis clavatis, paraphysatis; sporidiis ellipticis, curvatis, fusco-nigris, bipunctatis.

Hab. in ligno denudato in Germania.

109. **Rosellinia pulverulenta** Bon. Abhand. p. 151 (*Ascotricha*). — 1024
Peritheciis globosis v. ovoideis, nigris, punctatis, cæspitosis, pulvere fusco ferrugineo adspersis, ostiolo simplici; ascis cylindricis, paraphysatis; sporidiis oblongo-ellipsoideis, bipunctatis, fuscis.

Hab. in ligno putrido in Guestphalia. — Lignum eodem pulvere circumcirca inspersum.

110. **Rosellinia brunnea** Bon. Abhand. p. 152 (*Ascotricha*). — Pe- 1025
ritheciis brunneis, conico-clivosis, rotundatis, basi applanatis, carbonaceis, astomis, liberis; ascis cylindricis, octosporis, paraphysatis; sporidiis ellipsoideis, brunneis, opacis.

Hab. in ramis Pruni Cerasi in Germania.

BOMBARDIA Fr. Summa Veg. S. p. 389 (in nota) (Etym. *bombarda*, ob perithecia bombardæ similia). — Perithecia superficialia, coriaceo-cornea, verticaliter elongata, fasciculata, glabra, minute papillata. Asci pedicellati, octospori. Sporidia, diu vermicularia, continua, hyalina, tandem ovoidea, fusca, hyalino-caudata. — Lignicolæ.

1. **Bombardia fasciculata** Fr. Summ. Veg. Scand. p. 389. Wint. in 1026
Hedw. 1874. p. 56, cum icone, *Sphæria Bombarda* Batsch, Elench. Cont. I. fig. 181. *Bertia Bombarda* (Batsch) Ces. et De Not. Schema Sf. it. in Comm. I. 225. — Peritheciis fasciculatis, superficialibus, elongatis, ventricosis, coriaceis, numquam collabentibus, humidis badio-fuscis, siccis nigricantibus, lævibus, glabris, ostiolo papillæformi, nigro, minuto, majusculis; ascis in pedicellum filiformem, longissimum attenuatis, 115-165 ≃ 9-12; sporidiis diu conglobatis, cylindraceis, vermicularibus, simplicibus, chlorino-hyalinis, 40-55 ≃ 4, denique ovoideis, 14 ≃ 7, fuligineis caudâ hyalinâ, 1-septata, 24 ≃ 4 basi auctis.

Hab. in ligno fagineo, salicino, betulino, carpineo etc., præcipue in discis cæsis, in tota fere Europa et Amer. bor.

2. **Bombardia bertioides** Ces. Myc. Born. p. 21. — Late effusa in 1027
subiculo tenuissimo maculari, plagas nigras ad lignum decorticatum seu potius ad ambientem stratum peridermicum efficiens; pe-

ritheciis rugosis s. grosse granulatis, brunneis, ovatis, ostiolo vix prominente perforato; contextu consistente chartaceo; intus albis; sporidiis octonis, biseriatis, ex oblongo breviter cylindraceis, leniter curvulis, episporio tenuissimo, 13–18 ≃ 8, simplicibus, hyalinis, vel turbidulis, omnino conidia *Oidiorum* referentibus (tandem?); ascis mox diffluentibus nisi ex seriata sporarum dispositione divinandis.

Hab. in Sarawak (Borneo) in lignis putrescentibus. — Forma altera adest decalvata, quam omnino pro statu senescenti habere liceat. Tertia quoque forma magis abnormis, peritheciis irregularibus, turbinatis vel oblongis, in stipitellum passim attenuatis, sed sterilibus.

ANTHOSTOMELLA Sacc. Consp. Gen. Pyr. ital. p. 8. (Etym. sb *Anthostoma*, quia ejusdem analogum genus). — Perithecia submembranacea, globoso-depressa, peridermio typice circa ostiolum vix erumpens denigrato tecta. Asci octospori, rarissime tetraspori, typice paraphysati. Sporidia ovoidea v, oblonga, continua, fuliginea, mutica v. hyalino-appendiculata.

I. *Euanthostomella:* sporidiis muticis.

§ In Monocotyledoneis.

1. **Anthostomella punctulata** (Rob. et Desm.) Sacc. *Sphæria punctulata* Rob. et Desm. XIX, Not. p. 19. — Epi- rarius hypophylla, gregaria v. sparsa; peritheciis minutissimis globosis, innatis, atris, epidermide nigrificata tectis, 1/8 mill. diam., ostiolo erumpente prominulo papilliformi nitido; ascis cylindricis 60 ≃ 5; sporidiis octonis ovoideo-oblongis, monostichis, brunneis, 10 μ. long. 1028

Hab. in Gallia, Caen, in foliis vetustis Caricis pendulæ. — Sec. Niessl Beitr. p. 59, in ipsis exemplaribus Desmazierii asci sunt 40 ≃ 5 p. sporif.; sporidia 6–8 ≃ 3–4, sæpe fabæformia.

2. **Anthostomella minima** Sacc. Mich. II. 255. Ab *Anth. punctulata* recedit sporidiis multo minoribus; peritheciis gregariis minutis globulosis, 70–90 μ. diam., epidermide punctiformi-nigrificata tectis; ascis cylindricis breve stipitatis, 45–55 ≃ 4–5, octosporis paraphysatis; sporidiis, monostichis ovato-oblongis, inæquilateralibus, 4–5 ≃ 2½, fuligineo-olivaceis, minute 2-guttulatis. 1029

Hab. in culmo donacino, Conegliano (Italia boreali).

3. **Anthostomella lugubris** (Rob. et Desm.) Sacc., *Anthostoma lugubre* Niessl, Beitr. p. 58, t. VII, fig. 47. *Sphæria lagubris* Roberge in Desm. Not. An. Sc. nat. VIII, 1847, p. 172. *Sordaria* 1230

lugubris Ces. et de Not. Schem. p. 52. — Peritheciis majusculis, parenchymati haud mutato insidentibus vel subinnatis, gregariis solitariisve, epidermide nigro-maculosa tectis, subglobosis, coriaceo-carbonaceis, 400 μ. diam., ostiolo brevi conoideo, vix erumpentibus; ascis cylindricis, breviter stipitatis, apice rotundatis, 112-138 ≃ 10-11 p. sporif.; membrana interna crassa, 8sporis; sporidiis oblique monostichis elliptico-oblongis utrinque attenuato-rotundatis, 19-20 ≃ 9, opacis, atro-fuscis, nucleo oleoso, circulo hyalino; paraphysibus articulatis ascorum longitudine.

Hab. in foliis siccis Calamagrostidis arenariæ ad «Dune de Lyon sur. mer.» Calvados (Roberge).

4. **Anthostomella nitidissima** (Dur. et Mont.) Sacc. *Sph. nitidissima* Dur. et Mont. Syll. n. 831 et Fl. Alg., I, p. 523. — Gregaria confluens; peritheciis ovoideo-depressis, culmo atrato-nitido tectis, ostiolo prominulo obtuso; ascis subcylindricis, 80 ≃ 5; sporidiis 8 oblongis simplicibus, brunneis, 10 ≃ 3-4. 1031

Hab. in culmis Arundinis Donacis, Alger (Durieu).

5. **Anthostomella nigro-annulata** (B. et C.) Sacc. *Sph.* (Obtectæ) *nigrannulata* B. et C. Cuban Fungi n. 889. — Peritheciis epidermide circum circa nigra, medio pallida, tectis; ascis linearibus; sporidiis uniseriatis oblongo-subellipticis fuscis, 13-15 ≃ 7-7,5. 1032

Hab. in foliis putridis Yuccæ aloifoliæ, Aloes lineatæ in Cuba, Carolina sup., Africa australi.

6. **Anthostomella Yuccæ** Thuem. M. U. n. 1853. — Peritheciis sparsis gregariisve, epidermide circum circa breve nigrificata tectis, conico-hemisphæricis, nigris, parvis, ostiolo brevi perforante; ascis elongato-cylindraceis, breviter stipitatis, interdum curvis, apice rotundatis, 100 ≃ 6-7, octosporis; sporidiis ellipsoideis, fuligineo-fuscis, monostichis, 8 ≃ 4, eguttulatis; paraphysibus filiformibus ascos æquantibus. 1033

Hab. in foliis Yuccæ aloifoliæ, Coimbra (Lusitania).

7. **Anthostomella phæosticta** (Berk.) Sacc. Mich. I, 374, F. it. t. 374. *Sphæria phæosticta* Berk. Crypt. Antarct. p. 59, t. 68, fig. IV. Curr. Simpl. Sph. t. 59, fig. 127. *Leptosphæria phæosticta* Awd. in Mycol. Europ. t. 11, fig. 154. — Peritheciis minusculis, 1/5 mill. diam., globoso-depressis, innatis, ostiolo punctiformi-papillato vix erumpente, epidermide circum circa atro-inquinata; ascis cylindraceis breve stipitatis apice rotundatis, 45-60 ≃ 4, paraphysibus filiformibus obvallatis, octosporis; sporidiis oblongis, curvulis, utrinque rotundatis, 8 ≃ 3 1/2, sæpe 1-2-guttulatis, olivaceo-fuscis. 1034

Hab. in foliis putridis Hierochloes Brunonis, Caricis pendulæ, Arundinis Donacis, in Aucklandia, Britannia, Gallia et Italia.

8. **Anthostomella contaminans** (Dur. et Mont.) Sacc. Mich. II. 313. 1035
Sph. contaminans Dur. et Mont. Syll. n. 865 et Fl. Alg. p. 522. — Sparsa vel gregaria, maculans; peritheciis minutis cortici immersis tectis, globosis aut ovoideis depressis ostiolisque vix prominulis atris; ascis tereti-clavatis, apice rotundatis breve stipitatis, 90–110 ≃ 10, octosporis; sporidiis monostichis, oblongo-ellipsoideis, 15–18 ≃ 6–8, olivaceis, dein atrofuscis, initio strato hyalino obvolutis.

Hab. in petiolis foliorum Phænicis dactyliferæ et Chamæropis humilis, Mostaganem et Alger (Durieu, Trabut).

9. **Anthostomella pisana** Pass. Micr. Ital. in Rev. Myc. II, 35. — 1036
Peritheciis sparsis, pustulatim prominulis, epidermide nitido-nigricante tectis; ascis cylindricis brevissime stipitatis, rectis vel curvis, 8sporis, 45 ≃ 5½; sporidiis uniserialibus ovalibus subinæquilateris, tandem fuscis, 10 ≃ 5; paraphysibus continuis, intus granulosis.

Hab. ad petiolos aridos Chamæropis humilis, in R. Horto Botanico Pisano (Ital. media). — Accedit forma spermatifera *Leptothyrium* referens, spermatiis bacillaribus hyalinis 7½ ≃ 1½.

10. **Anthostomella platensis** Speg. F. Arg. Pug. III. p. 14. — Macu- 1037
lis stromaticis, epidermicis, parvulis, suborbicularibus ⅓–½ mill. diam., atris, sparsis v. laxe gregariis, rarissime confluentibus, ambitu determinato, areola latiuscula pallescente cinctis; peritheciis, globosis, atris, glabris, sub maculis profundiuscule immersis, ⅓–½ mill. diam., ostiolo conoideo, superficiem attingente, non exerto ornatis, contextu coriaceo-membranaceo, indistincte parenchymatico, fuligineo-atris; ascis cylindraceo-subclavatis, sursum obtuse truncato-rotundatis, deorsum in pedicellum gracilem, breviusculum desinentibus, 90–110 ≃ 10–12, octosporis, aparaphysatis; sporidiis oblique monostichis, elliptico-navicularibus, utrinque inæquilateraliter rotundatis, inferne appendice parva, globoso-hemisphærica ornatis, 20 ≃ 7–8, obscure fuligineis, grosse uniguttulatis.

Hab. in culmis emortuis ad ripas fluminis Rio de la Plata dejectis putrescentibus, Amer. merid.

11. **Anthostomella Puiggarii** Speg. Fungi Arg. Pug. IV, n. 127. — 1038
Peritheciis minutis, 110–120 μ. diam., globosis, atris, immersis sparsis, membranaceo-subcarbonaceis, contextu indistincte parenchymatico, macula elongata, majuscula, vix fuscescente, linea stro-

matica atra, tortuosa limitata insidentibus; ascis cylindraceis sursum obtuse rotundatis, deorsum breve crasseque stipitatis, 65–70 ≃ 6–7, aparaphysatis, octosporis; sporidiis recte v. oblique monostichis, elliptico-navicularibus, e latere valde compressis, 10–12 ≃ 4–5 e latere 1,5–2 crass. utrinque obtusiusculis, opace fuligineis, primo strato mucoso tenui obvolutis.

Hab. in foliis dejectis Bambusaceæ cujusdam prope sepulchretum de Iporanga, Brasilia meridionali (J. Puiggari).

12. **Anthostomella Tenacis** (Cooke) Sacc. *Sphæria Tenacis*, Cooke N. Zeal. Fungi in Grev. VIII. p. 67. — Sparsa, punctiformis, tecta; peritheciis subglobosis, depressis; ascis cylindraceis, stipitatis; sporidiis ellipticis, continuis, 10 ≃ 5, brunneis. 1039

Hab. in Phormio tenace, Waitaki, Nov. Zelandia.

13. **Anthostomella eliminata** (B. et C.) Sacc. *Sphæria eliminata* B. et C. North Am. Fungi n. 943. — Peritheciis epidermide nigrificata supra ostiolum albâ tectis; ascis linearibus; sporidiis anguste oblongis uninucleatis, 14 ≃ 3,5–4, monostichis. 1040

Hab. in caule Smilacis, Alabama, Amer. bor.

14. **Anthostomella Smilacis** H. Fab. Sphér. Vaucl. p. 80, t. I, fig. 11. — Peritheciis numerosissimis, epidermide tectis, semi-insculptis, globusis, atris, vertice papillatis, diam. 1/5 mill.; ascis cylindraceis, brevissime stipitatis, 8-sporis, 100–112 ≃ 14; sporidiis, oblique monostichis, ovatis, atro-fuscis, 1–2-magniguttatis, 16–18 ≃ 11–12. 1041

Hab. ad ramos exsiccatos Smilacis asperæ. — A *Sphæria Smilacis* Cast. certe diversa.

15. **Anthostomella sepelibilis** (B. et C.) Sacc. *Sphæria sepelibilis* B. et C. North. Am. Fungi n. 928, Cooke New Jersey f. — Hysteriiformis, cuticula nigrificata tecta; sporidiis ellipticis, 1–2 nucleatis, 18 ≃ 8, brunneis. 1042

Hab. in caule Smilacis laurifoliæ in Carolina infer. et in New Jersey. — Sec. Berk. sporidia, 12–13, longa.

16. **Anthostomella smilacinina** (Peck) Sacc. *Sphæria* (caulicolæ) *smilacinina* Peck 29 Rep. on the St. Mus. — Peritheciis copiosis, minutis, epidermide nigrificata initio tectis, prominulis; ascis cylindraceis v. subclavatis; sporidiis stiptatis, ovoideis, v. inæqualiter ellipsoideis, flavo-olivaceis, 12–15 μ. longis, sæpius 1-nucleatis. 1043

Hab. in caule Smilacinæ stellatæ, Center (Amer. bor.).

17. **Anthostomella sphæroidea** Speg. Fung. Arg. I, 179. — Peritheciis sphæroideis, minutis, 200–250 μ. diam., dense gregariis, atris contextu membranaceo-sub-carbonaceo, fuligineo-atro, superne epi- 1044

dermide extus punctiformi-nigrificata adnata tectis macula late albicante insidentibus; ascis cylindraceis sursum subtruncato-rotundatis, deorsum in pedicellum brevem desinentibus, 75–80 ≃ 6, aparaphysatis, octosporis; sporidiis recte vel oblique monostichis, non vel 1-2 guttulatis, 9–12 ≃ 4-5, intense fuligineis.

Hab. ad folia emortua putrescentia Yuccæ gloriosæ, a la Recoleta, Argent. Amer. boreali.

18. **Anthostomella Tomicum** (Lév.) Sacc. Fungi Ven. Ser. IV, 1, F. ital. t. 373. *Sph. Tomicum* Lév. Ann, S. N. 1848, p. 144, Cooke Hndb. p. 894. — Peritheciis innatis, e basi applanata convexulis, nitidulis, epidermide circum circa nigrificata tectis, ostiolo perforante obtusiusculo; ascis cylindraceis, apice rotundatis, subsessilibus 100–115 ≃ 15–18, octosporis; sporidiis monostichis, ovoideo-oblongis, sæpe inæquilateralibus 15–16 ≃ 8-9, 1-guttatis, fuligineis, muticis. 1045

Hab. in foliis putrescentibus Typharum Juncorum, Graminumque in Italia, Gallia, Belgio, Britannia. — Var. *leptospora;* ascis 100 ≃ 6-7; sporidiis 16 ≃ 5-6. In foliis Cladii Marisci in Gallia.

19. **Anthostomella tumulosa** (Rob. et Desm.) Sacc. *Sphæria tumulosa* Rob. et Desm. XIX Not. p. 14. — Sparsa minuta epidermide nigricante tecta; peritheciis immersis evoideis nigris; ostiolis erumpenti-punctiformibus, nucleo livido v. nigro; ascis elongatis, cylindricis, 150–200 ≃ 10; sporidiis majusculis, 20 ≃ 6–6½, octonis, brunneis, semi-opacis, oblongo-semiellipsoideis v. sublunulatis, uniseriatis, 1-3-guttulatis. 1046

Hab. in Gallia, in caule Junci articulati.

20. **Anthostomella consanguinea** (Ces.) Sacc. *Sordaria consanguinea* Cesati in Rabh. F. E. 2661. — Perithecis sparsis, punctiformibus, epidermide, vix nigrificata obtectis, demum perforantibus et verticem obtusum convexum revelantibus; ascis linearibus, 60–70 ≃ 16; sporidiis 8, uniserialibus, ellipticis, ad utrumque polum subacutiusculis, primitus viridibus, dein fuscis, omni ætate in medio ocellatis. 1047

Hab. in lamina exsiccata foliorum Sabal Adansonii in Horto Bot. Neapolitano, sub diu (Cesati).

21. **Anthostomella Trabutiana** Sacc. et R. Rev. mycol. III, f. IX, p. 27. — Peritheciis gregariis cortice nidulantibus, epidermideque ad ostiolum punctiforme-nigrificata velatis, globulosis, ¼ mill. diam.; ascis cylindricis, 100 ≃ 5, p. sporif. 80–90, paraphysibus guttulatis obvallatis, octosporis; sporidiis monostichis, ovoideo-oblongis, 10–11 ≃ 4, utrinque rotundatis, 2-guttulatis, olivaceo-fuscis. 1048

Hab. in foliis emarcidis Agaves americanæ in Algeria (Trabut).

22. **Anthostomella Parmula** (Lév.) Sacc. *Sphæria* (obtecta) *Parmula* Lév. Ann. Scienc. nat. 3, 1845, p. 52. — Gregaria; peritheciis globosis immersis nigris, collis in scutum discoideum dilatatis, 1-2 mill. diam.; ostiolis centralibus papillatis; ascis linearibus; sporidiis ovoideo-oblongis, utrinque subattenuatis, fuligineis. 1049

Hab. in insula Borbonia, ad culmos Gramineæ dictæ *Calumet* (Perville).

23. **Anthostomella clivulosa** (Mont.) Sacc. *Sph. clivulosa* Mont. Syll. crypt. n. 853, et Guy., n. 563, t. 6, f. 4. — Culmicola, epidermide atrata semper tecta, linearis, confluens; peritheciis convexis depressis uni- aut pluriserialibus intus nigris, ostiolis minutis prominulis; ascis lineari-clavatis, breve stipitatis, sporidia 15 μ. longa, monosticha, 8 oblonga fusca foventibus. 1050

Hab. in culmis arundinaceis?, Cayenna (Leprieur).

§§ In Dicotyledoneis.

24. **Anthostomella clypeata** (De Not.) Sacc. *Sordaria clypeata* De Not. Sfer. ital. p. 24, t. XXII, — Peritheciis sparsis, peridermio atrato adhærente nigricante tectis, sphæroideis v. sphæroideo-depressis, ostiolo papillato brevi, perforante, subcarbonaceis, basi in sicco subcollabascentibus; ascis teretiusculis, tenuibus, 8-sporis, filiformi-paraphysatis; sporidiis oblongo-ellipsoideis, 10 μ. longis, initio luteolis, 1-guttatis, maturis badio-fuligineis. 1051

Hab. in sarmentis Rubi fruticosi, Valle Intrasca, It. bor.

25. **Anthostomella conorum** (Fuck.) Sacc. *Amphisphæria conorum* Fuck. Symb. myc. App. III, p. 20. — Peritheciis sparsis subgregariisve, sub conorum squamarum epidermide, grisea, pustulatim elevata nidulantibus, 1 mill. diam., globosis, atris, ostiolo prominulo, brevi cylindraceo, truncato, aterrimo, perforato, primo spermatiiferis, spermatiis cylindraceis, continuis, rectis, hyalinis, 20-24 ≃ 4; demum ascigeris, ascis cylindraceis, in stipitem attenuatis, 8sporis, 104 ≃ 11; sporidiis oblique monostichis, oblongo-ovatis, utrimque obtusis, continuis, fuscis, demum totis opacis, 15 ≃ 10. 1052

Hab. in squamis conorum dejectis Pini sylvestris sæpius pag. sup., Vollrads (Rhenogovia).

26. **Anthostomella nitidula** Sacc. Fungi Ven. Ser. IV. p. 2, F. ital. t. 131. — Peritheciis densiuscule gregariis sub epidermide pustulatim elevata et nitide circa quodque perithecium nigrificata nidu- 1053

lantibus, e globoso lenticularibus, $^1/_2$ mill. diam., membranaceis, nucleo in vivo subolivaceo, ostiolo brevi conoideo-papillato epidermidem tandem perforante; ascis cylindricis, apice obtusatis, 110–120 ≃ 10, breve crasseque stipitatis, paraphysibus filiformis sæpe guttulatis obvallatis, 8-sporis; sporidiis oblongo-fusoideis, inæquilateralibus, pluriguttulatis, diu hyalinis et 25 ≃ 6–7, tandem fuscis, 20 ≃ 5.

Hab. in ramulis tenuioribus Carpini Betuli, Selva, Treviso (Italia boreali).

27. **Anthostomella nigrotecta** (B. et Rav.) Sacc. *Sphæria nigrotecta.* 1054
B. et Rav. North Amer. Fungi n. 972. — Peritheciis nitidis centro e cuticula albis; ascis linearibus; sporidiis ellipticis, fuscis monostichis.

Hab. in foliis Ilicis in Carolina inf., America boreali.

28. **Anthostomella limitata** Sacc. Fungi Ven. Ser. IV, pag. 1, Fungi 1055
ital. tab. 129. — Peritheciis gregariis sub epidermide leniter tumefacta et circum circa breviter infuscata nidulantibus, membranaceis, globoso-depressis, $^1/_6$ mill. diam., atris; ostiolo breviter papillato, non vel vix perforante; ascis cylindricis, 70–85 ≃ 4–5, breve crassiuscule stipitatis, apice rotundatis, paraphysatis, 8sporis; sporidiis oblique monostichis ovoideis utrinque vel uno apice acutiusculis, continuis 10–12 ≃ 4–5, dilute fuligineis, 2-guttulatis.

Hab. in caulibus ramulisque tenuioribus Corni sanguineæ, (asci 85 ≃ 5; sporidia 10–12 ≃ $4^1/_2$–5), Rubi fruticosi (sp. 10–11 ≃ $4^1/_2$), Kerriæ japonicæ (sp. 10 ≃ 5), Viburni Lantanæ (asci 80 ≃ 5; sp. 10–12 ≃ 4–5), Rusci aculeati (asci 80–90 ≃ 5; sp. 10–11 ≃ $4^1/_2$–5), Angelicæ sylvestris (asci 70 ≃ 4; sp. 10–11 ≃ 4–$4^1/_2$), Vincæ majoris et Salicis babylonicæ, in agro Tarvisino (Italia bor.); in ramis Salicis Humboldtianæ (asci 90–100 ≃ 7–8; sp. 14–16 ≃ 5–6), prope Buenos Aires Amer. australis.

29. **Anthostomella Olearum** Sacc. et Speg. Mich. I, 25, Fungi ital. 1056
t. 176. — Peritheciis innatis, sparsis, epidermide tumidula et leniter nigrificata velatis, globulosis, breve papillatis, subcarbonaceis; ascis cylindricis, longiuscule attenuato-stipitatis, 130–150 ≃ 7–9, apice tunica integra, paraphysibus filiformibus spuriis obvallatis, octosporis; sporidiis recte monostichis, ellipsoideis, utrinque obtuse rotundatis, 12–15 ≃ 6–7, sæpe 2-guttatis, exappendiculatis, fuligineis.

Hab. in cortice duriore Oleæ europeæ, Conegliano (Italia

bor.). — Accedit ad *Anth. clypeatam* (De Not.) Sacc., quæ ascis subclavatis, peritheciis distincte clypeatis satis recedere videtur.

30. **Anthostomella intermedia** Sacc. Mich. I, 327, Fungi ital. t. 172, *Anthostoma intermedium* Sacc. Fungi Ven. Ser. IV, p. 18, vix Nits. — Peritheciis gregariis, cortice nidulantibus, globosis $^1/_2$ mill. diam., breve papillatis, epidermidem denique perforantibus, parum nigrificantibus; ascis cylindraceis breve stipitatis, apice rotundatis, rotundatis, 70–80 ≃ 6, paraphysibus filiformibus guttulatis obvallatis, octosporis; sporidiis ovato-oblongis, 12–14 ≃ 5, quandoque curvulis, minute 2–3-guttulatis, fuligineis. 1057

Hab. in ramis corticatis putrescentibus Salicis vitellinæ, Selva et Treviso (Italia boreali).

31. **Anthostomella Unedonis** (De Not.) Sacc. Fungi ital. t. 175, Mich. I, 328, *Sph. Unedonis* De Not. Microm. ital. Decad. IX, fig. VI. — Peritheciis gregariis e basi applanata, lenticularibus, $^3/_4$ mill. diam. peridermio circum circa nigrificato tectis, ostiolo brevi erumpente; ascis crasse cylindraceis, apice obtusis, 150 ≃ 12–14, stipite 25 micr. longo, paraphysibus filiformibus guttulatis asco longioribus obvallatis, octosporis; sporidiis oblongis utrinque rotundatis, 25 ≃ 12, rectis, 1-guttulatis, fuligineis, initio strato hyalino exiguo cinctis. 1058

Hab. in truncis corticatis emortuis Arbuti Unedonis, Genova allo Scoglietto (De Notaris).

32. **Anthostomella Intybi** (Dur. et Mont.) Sacc., *Sph. Intybi* Dur. et Mont. Syll. Crypt. n. 827 et in Fl. Alg. p. 518. — Tecta, atro-inquinans; peritheciis sparsis immersis ovato-globosis persistentibus atris subprominentibus, pro ratione magnis, $^3/_4$ mill. diam., papilla decidua ostiolatis, nucleo fulvescenti evacuato intus nitidis; ascis clavatis 120 ≃ 20; sporidiis distichis cymbiformibus, altero latere gibbis, initio biguttatis fuscidulis, dein 4-guttulatis intense fuligineis. 1059

Hab. in caulibus Cichorii Intybi, Alger (Durieu). — Habitus *Anthostomatis Xylostei* (Pers.).

33. **Anthostomella Baptisiæ** (Cooke) Sacc. *Sph. Baptisiæ* Cooke, Rav. Fungi Amer. n. 200, et in Grev. — Sparsa vel subgregaria; peritheciis depressis, epidermide nigrificata tectis; ascis obclavatis; sporidiis elongato-ellipticis, binucleatis, 14 ≃ 4. 1060

Hab. in caulibus Baptisiæ perfoliatæ, Aiken, Carolina infer., socia *Phoma Baptisiæ* Cooke.

34. **Anthosnomella chionostoma** (Dur. et Mont.) Sacc. *Sph. chiono-* 1061

stoma Dur. et Mont. in Syll. Crypt. n. 845 et in Fl. Alg. p. 521. — Caulicola; peritheciis innato-erumpentibus convexo-hemisphæricis, atris, epidermide nigricante tectis, ostiolo zona alba farinosa cincto; ascis linearibus, 150–180 ≃ 15; sporidiis, 25–30 ≃ 12, simplicibus, brunneis, late cymbiformibus, uniseriatis.

Hab. ad caules herbarum, Alger (Durieu).

II. *Entosordaria:* sporidiis hinc v. utrinque hyalino-appendiculatis.

35. **Anthostomella perfidiosa** (De Not.) Sacc. *Sordaria perfidiosa* De Not. Recl. pir. in Comm. II, p, 481 (1867). — Corticola; peritheciis majusculis, sparsis, rotundatis, peridermio pustulato et circum circa nigricante tectis, ostiolo valido, mucroniformi, nitido, apice emergente; ascis teretiusculis, octosporis, paraphysatis; sporidiis ellipsoideis, vertice papillula brevi obtusa hyalina auctis, badio-fuscis. 1062

Hab. in cortice Aceris Pseudoplatani, Riva, (Italia boreali (Carestia).

36. **Anthostomella Pœtschii** Niessl Not. Pyr. p. 41 (1876), *Amphisphæria umbrinella* Fuck. Symb. myc. 159, Fungi rhen. 2028, nec De Not.! — Peritheciis sparsis, immersis, demum erumpentibus, strato pseudostromatico conico elevato apice retuso, atro fusco primitus tectis, majusculis, 0,8 mill. diam., globosis, fragilibus carbonaceis, ostiolo conico; ascis tubulosis, stipite brevi 160–180 ≃ 12, sporidiis octonis, monostichis, oblongo-ovatis, rectis, atro-fuscis, episporio fragili subopaco, antice appendiculo brevi conico hyalino, 20–24 ≃ 10–12; paraphysibus multis, tenuibus guttulatis, simplicibus vel sparse ramosis. 1063

Hab. in cortice Aceris Pseudoplatani prope Œstrich et Kremsmünter (Germania). — Sporidiis non utrinque appendiculatis mox dignoscitur ab *A. umbrinella.* Verisimiliter vero non diversa ab *A. perfidiosa* (De Not.) Sacc.

37. **Anthostomella appendiculosa** (B. et Br.) Sacc. Mich. II, 234 et Fungi ital. t. 174, *Sphæria appendiculosa* B. et Br. Brit. Fungi n. 613, t. 7, f. 20. — Peritheciis gregariis v. subsparsis, globoso-depressis, $^3/_4$ mill. diam.; peridermio circum circa nitide nigricante et adhærente velatis; ostiolo papillato breviter extante; ascis cylindraceis, breve stipitatis, 130–135 ≃ 10–11, aparaphysatis, 8sporis; sporidiis diu subfusoideis sursum acutis, basi appendicula rostriformi obliqua 8 micr. longa, facile secedenti auctis (una cum appendice) 28 ≃ 7–8, 4-guttulatis, vel 1-nucleatis, hyalinis, tandem 1064

(etsi rarius et extra ascos) ovoideo-oblongis, continuis, 15-16 ≃ 5-6, subfuligineis.

Hab. in sarmentis emortuis Ruborum in Britannia, Italia, Lusitania, Gallia et Argentina (Amer. austr.).

38. **Anthostomella confusa** Sacc. *Sph. appendiculosa* B. et C. North Amer. Fungi n. 967, nec B. et Br. — Peritheciis hic illic congestis, basi epidermide arcte cinctis; ascis oblongis; sporidiis biseriatis fusiformibus quadrinucleatis, 12-13 μ. longis, utrinque appendicula filiformi, recta, hyalina auctis. 1065

Hab. in foliis Sapindi, Texas (C. Wright). — Ab *A. appendiculosa* certe diversa, etsi, ut videtur, immatura descripta.

39. **Anthostomella umbrinella** (De Not.) Sacc. *Sphæria umbrinella* De Not. Micr. ital. Dec. IX. fig. V. — Peritheciis globulosis, laxe gregariis, cortice immersis, ostiolo erumpente et circum circa peridermium clavante et nigrificante; ascis teretibus breve stipitatis, paraphysibus filiformibus guttulatis obvallatis, octosporis 160 ≃ 12 sporidiis oblique monostichis ellipsoideis fuligineis, 22-24 ≃ 12-14, utrinque apiculo minuto hyalino auctis. 1066

Hab. in cortice Castanearum dealbato prope Genuam (Italia).

40. **Anthostomella Closterium** (B. et C.) Sacc. *Sph. Closterium* B. et C. North Amer. Fungi n. 933. — Minuta, initio epidermide nigro-nitente tecta, dein erumpens; ascis lanceolatis; sporidiis ellipticis utrinque appendice longa curvata, totis 50 μ. longis. 1067

Hab. in ramis Spirææ opulifoliæ, in montanis New York, America boreali. — Rarius sporidia in duas partes ellipsoideas dividuntur.

41. **Anthostomella rostrispora** (Gerard) Sacc. Mich. I, 25, *Sph. rostraspora* W. R. Gerard, Torr. bot. Cl. Jun. 1874. — Peritheciis gregariis subglobosis, stromate nigro fibrilloso insidentibus; ascis cylindraceis; sporidiis ovoideis, fusco-brunneis, 15 ≃ 5, appendicula seu rostello hyalino auctis. 1068

Hab. in basi caulis Inulæ Helenii, Amer. bor. — Var. *foliicola* Fungi ital. t. 177; peritheciis epidermide circum circa nigrificata tectis, ¼ mill. diam.; ascis cylindricis, 91-115 ≃ 5, octosporis; sporidiis monostichis, oblongo-ellipsoideis, 9-14 ≃ 4, 2-guttulatis, fuligineis, utrinque rostro curvo hyalino auctis, rostro inferiore 7 μ. longo, superiore 5 μ. longo. — In foliis putrescentibus Castaneæ vescæ, Conegliano (Italia boreali).

42. **Anthostomella achira** Speg. Fungi Arg. Pug. IV. n. 128. — Macula nulla; peritheciis sparsis, immersis, lenticulari-globulosis, co- 1069

riaceo-membranaceis, glaberrimis, atris; ascis cylidraceis v. clavatis, sursum plus minusve rotundatis, crasse tunicatis, operculatim dehiscentibus, deorsum breve attenuato-stipitatis, 90–140 ≃ 7–10, aparaphysatis, octosporis; sporidiis oblique monostichis v. distichis, ellipticis, 16–17 ≃ 5 (25 μ. long. cum caudis), quandoque inæquilateralibus, primo hyalinis dein fuligineis, strato mucoso ac utrinque cauda conico-acutiuscula, sæpe leniter curvula ornatis, grosse 1-guttulatis, levissimis.

Hab. in foliis dejectis putrescentibus Cannæ glaucæ (vulg. Achira) in uliginosis nemorosis, Palermo, Argent. Amer. austr.

43. **Anthostomella mirabilis** Speg. in Rev. Mycol. 1880, p. 28 nota 4, Mich. II, 313. — Peritheciis globosis subcarbonaceis, atris, parenchymate immersis, ostiolo papillulato exerto donatis, 180–200 micr. diam.; ascis cito diffluentibus; sporidiis elliptico-sublimoniiformibus e latere compressis curvulis, fuligineis, utrinque apiculo hemisphærico, hyalino auctis, strato mucoso obvolutis, sæpe uni-guttatis, 15 ≃ $5^1/_2$–6, e latere $3^1/_2$–4 μ. cr. 1070

Hab. in foliis putridis Ananassæ, Toulouse (Gallia).

44. **Anthostomella scotina** (Dur. et Mont.) Sacc. *Sph. scotina* Dur. et Mont. Fl. Alg. pag. 534 et Mont. Syll. n. 852. — Subinquinans; peritheciis immersis sparsis punctiformibus extus et intus atris cum ostiolo late conico tandem erumpente ovoideis; ascis numerosis cylindricis, sporidiis 6-8 oblongis, 10 μ. longis, tandem fuscis, ex utroque fine obtuso appendiculatis aculeatisve. 1071

Hab. in culmis Scirpi lacustris, La Calle (Durieu).

45. **Anthostomella unguiculata** (Mont.) Sacc. *Sph. unguiculata* Mont. Syll. Crypt. n. 861 et Fl. Chil., VII, p. 464, t. 9, f. 8. — Hypophylla; peritheciis globosis, endogenis, atris; ostiolo eumorpho prominulo; ascis cylindricis 8-sporis; sporidiis, oblongis, simplicibus, fuscis, altero fine unguiculo hyalino instructis. 1072

Hab. in foliis Desfontainiæ?, in Chile (Gay).

46. **Anthostomella italica** Sacc. et Speg. Michel. I, 328, Fungi ital. t. 178. — Peritheciis gregariis, foliorum parenchymate immersis, epidermide vix perforata et circum circa breve nigrificata velatis, globoso-depressis, $^1/_5$ mill. diam., brevissime papillatis; ascis cylindraceis, breve stipitatis, 80–90 ≃ 10, paraphysibus (spuriis?) crassiusculis, pluriguttulatis, obvallatis, octosporis; sporidiis oblique monostichis, obovatis, curvulis, 18–22 ≃ 6–7, 2-guttatis, fuligineis, cauda hyalina $1^1/_2$–2 obtusiuscula basi auctis. 1073

Hab. in foliis putrescentibus Sacchari stricti nostratis, nec non Bambusæ cultæ, Susegana (Italia boreali).

***Anthostomella affinis** Sacc. Mich. I. 439. — A typo differt peritheciis duplo majoribus, sporidiis paulo brevioribus; nempe peritheciis $^3/_4$ mill. diam.; ascis 90-100 ≃ 8; sporidiis 15-16 ≃ 6. — In caulibus putrescentibus Galii sylvatici, Belluno (Spegazz.).

47. **Anthostomella Bambusæ** (Lèv.) Sacc. *Sph.* (conferta) *Bambusæ* 1074
Lév. Ann. Scienc. nat. 3, 1845, p. 50; *Hypopteris Bambusæ* Berk. Dec. of Fungi n. 485. — Peritheciis globosis, confertis, intus albidis, stromate subeffuso carbonaceo nigro obtectis, ostiolis prominulis obtusis; ascis cylindraceis, paraphysatis; sporidiis (sec. Berk.) ellipsoideo-oblongis, fuscis, 14 μ. longis, appendicula hyalina basi auctis.

Hab. ad culmos Bambusæ arundinaceæ, in montibus Nangki, in India orientali.

48. **Anthostomella Rehmii** (Thuem.) Rehm Asc. Diagn. n. 387, *Am-* 1075
phisphæria Rehmii Thuem. Myc. univ. n. 461. — Peritheciis solitariis, epiphyllis, epidermide tectis, demum perforantibus, atris; ascis cylindraceis, curvulis, apice obtusis, hyalinis, 120 ≃ 10, octosporis; sporidiis ovatis, utrinque acuminatis, sæpe inæquilateralibus, 1-2-nucleatis, polo altero obtusiore ibique appendiculâ hyalina, brevissima caudatis, fuscidulis, uniseriatis, 15 ≃ 4,5-5; paraphysibus elongatis, tenuibus, ramosis, hyalinis, Jodi solutione adhibita valde cœrulescentibus.

Hab. in Bavaria, Bayreuth, in Abietis pectinatæ foliis emortuis ad ramos adhuc vivos, raro.

49. **Anthostomella tomicoides** Sacc. Fungi Ven. Ser. IV, 1, Fungi 1076
ital. t. 130. — Peritheciis sparsis gregariisve membranaceis sub epidermide circum circa nitide nigrificata et adhærente nidulantibus, sphæroideo-applanatis, $^1/_2$ mill. diam., atris; ostiolo argute conoideo epidermidem perforante et parum superante; ascis cylindricis brevissime crasseque stipitatis, 90-100 ≃ 7-8, 8sporis, aparaphysatis; sporidiis suboblique monostichis, ovoideis, inæquilateralibus, continuis, minuteque hyalino-appendiculatis.

Hab. ad caules putrescentes Carlinæ vulgaris, Galii sylvatici, Salviæ glutinosæ, Melampyri nemorosi, in sylva Montello, Treviso (Italia bor.). — *Anth. Tomico* (Lév.) et præcipue *Anth. perfidiosæ* (De Not.) affinis, sed satis distincta.

III. *Desciscentes* (Macula stromatica nigra circa ostiolum nulla, v. saltem non indicata).

50. **Anthostomella Genistæ** (Crouan) Sacc. *Sphæria Genistæ* Crouan Finist. p. 25. — Peritheciis ligno semiimmersis peridermio tectis, sphæricis, 1 mill. diam.; ostiolo brevissimo peridermium perforante; ascis cylindraceis, octosporis, monostichis, cymbiformibus, bruneis, 4-guttulatis, 1077

Hab. in ramulis Genistæ scopariæ, Finistère (Gallia).

51. **Anthostomella abdita** (B. et C.) Sacc. *Sphæria* (Obtectæ) *abdita* B. et C. Cuban Fungi n. 857. — Gregaria, epidermide tecta, cortice immersa; ascis brevibus; sporidiis late cymbiformibus quaternis cornicoloribus, 15–25 ≃ 8–12. 1078

Hab. in ramis Diptericis odoratæ in Cuba.

52. **Anthostomella Cytisi** (Fuck.) Sacc. *Myriocarpa Cytisi* Fuck. Symb. myc. p. 116, t. VI, fig. 36. — Peritheciis dense gregariis, sub epidermide nidulantibus, aterrimis, vertice epidermidi dealbatæ adnatis simulateque albo-papillatis; ascis breviter stipitatis, oblongis, obtusis, octosporis 68 ≃ 12; sporidiis lanceolatis, rectis, continuis, primo 2–4 guttulatis, hyalinis, demum fuscis, 24 ≃ 8. 1079

Hab. in ramulorum alis Cytisi sagittalis prope Œstrich (Rhenogovia). — Sec. Fuck. spermogonium sistit *Septoriam* (Psilothecium) *innumerabilem* Fuck.; peritheciis punctiformibus, subcutaneis; spermatiis tereti-fusoideis, curvatis, 6-7-septatis, 44 ≃ 4, hyalinis.

53. **Anthostomella Loniceræ** (Fuck.) Sacc. *Myriocarpa Loniceræ* Fuck. Symb. myc. p. 117. — Peritheciis gregariis, numerosissimis, punctiformibus, subglobosis, atris, tectis, simulate albo-papillatis; ascis stipitatis, amplis, oblongis, retrorso-attenuatis, curvatis, 8-sporis, 40 ≃ 10; sporidiis subdistichis, oblongis, utrinque attenuatis, simplicibus, 3guttulatis, hyalinis (an semper?), 14 ≃ 4. 1080

Hab. in ramis vivis Loniceræ alpigenæ, rarius, Jura (Morthier).

54. **Anthostomella africana** (K. et C.) Sacc. *Sphæria africana* Kalch. et Cooke Grev. 1880, p. 29, Tab. 137, f. 29. — Sparsa, caulicola, erumpens; peritheciis subglobosis, atris, nitidis, pertusis, semi-emersis; ascis cylindraceis; sporidiis uniseriatis, amygdalæformibus, atro-fuscis, opacis, 22–32 ≃ 12–15. 1081

Hab. in caulibus herbaceis in Africa australi.

55. **Anthostomella sulcigena** (Mont.) Sacc. *Sph. sulcigena* Mont. Syll. Crypt. n. 856 et Guy., mss., n. 566. — Seriata; peritheciis tectis, hemisphæricis dimidiatis superne fusco-lanatis, epidermidi adnexis, ostiolo erumpente punctiformi; ascis diffluentibus; sporidiis ovoideis, fuscis a latere visis plano-concavis, 20 ≃ 10, e latere 5 μ. cr. 1082

Hab. in petiolis Palmæ cujusdam, sub epidermide, Cayenna (Leprieur).

56. **Anthostomella stegophora** (Mont.) Sacc. *Sph. stegophora* Mont. Syll. n. 854 et Guy. mnss., n. 564. — Bullato-erumpens, tecta, lineari-oblonga elongataque; peritheciis seriatis, atris, sphæricis, nigro-farctis, stromate concolori immersis; ostiolis globosis prominulis; sporidiis fuscis ex oblongo amygdaloideis. 1083

Hab. in culmis arundinaceis? Guyana (Leprieur).

57. **Anthostomella oblectans** (Ces.) Sacc. *Sordaria oblectans* Ces. Myc. Born. p. 23. — Peritheciis e corticibus grgatim erumpentibus obovatis vel obconicis, 2-3 mill. altis, atris, lævigatis, vertice rotundato in ostiolum minutum acutum abrupte desinente; nucleo albido; paraphysibus capillaribus ascum paullo superantibus; ascis filiformibus pro $^2/_3$ longitudinis in clavulam cylindraceam exeuntibus, 30 ≃ 2; sporidiis minutis, 2 ≃ 1, oblongis, utrinque obtusis, simplicibus, fuscis, octonis. 1084

Hab. in corticibus Sarawak Bornei. — Dimensiones sporidiorum (an ex errore?) justo minores videntur.

58. **Anthostomella palmacea** (Cooke) Sacc. *Sphæria palmacea* Cooke Calif. Fungi in Grev. VII, p. 12. — Immersa, tecta; peritheciis minimis, subglobosis; ascis cylindraceis; sporidiis ellipticis, uniseriatis, constrictis, brunneis, 13 ≃ 6. 1085

Hab. in foliis emortuis Palmarum in California. — Solummodo conspicitur si cuticula tegens madefiat.

59. **Anthostomella Paliuri** H. Fab. Sphær. Vaucl. p. 81, t. I, fig. 12. — Peritheciis sparsis, nonnullisve confertis, ligno fracido infixis, epidermide tectis, globosis, atris, vertice erumpenti papillatis $^2/_3$ mill. diam.; ascis cylindraceis, stipitatis, 8-sporis, 70-80 ≃ 8; sporidiis simplicibus, oblique monostichis, plus minusve regulariter ovalibus, fusco-fulvis, 10-15 ≃ 5-6. 1086

Hab. ad ramos emortuos Paliuri aculeati, Vaucluse (Gallia).

60. **Anthostomella delitescens** (De Not.) Sacc. Mich. I, 328. *Sphæria delitescens* De Not. Micr. ital. Dec. VIII, p. 124, fig. IX. — Peritheciis gregariis subcutaneis, globoso-depressis, ostiolis conoideis vix perforantibus; ascis teretibus, subsessilibus, octosporis, 1087

100–110 ≃ 10–12; sporidiis oblique monostichis, oblongo-ellipsoideis, utrinque rotundatis, guttulatis, fuligineis, 28–30 ≃ 7–7,5.

Hab. ad ramos Ericæ arboreæ prope Genuam (Italia). — Cutis supra perithecia sæpius cinerascit.

61. **Anthostomella nobilis** Sacc. et Sp. Mich. I, p. 328, F. ital. t. 173. 1088
Peritheciis macula stromatica vix ulla cinctis, globosis papillulatis, $^1/_3$–$^1/_2$ mill. diam., nigris; ascis cylindraceis, breve stipitatis p. sporif. 90 ≃ 8, octosporis, paraphysibus guttulatis obvallatis; sporidiis oblongo-ovoideis, 15–16 ≃ 6–7, fuligineis, eguttulatis.

Hab. in ramis corticatis Lauri nobilis putrescentibus, Conegliano (Ital. bor.).

62. **Anthostomella acanthina** (Mont.) Sacc. *Sph. acanthina* Mont. 1089
Syll. Crypt. n. 866 et in Fl. Alg. p. 533. — Confertim sparsa, epidermide innata, semper tecta; peritheciis globosis minutis pachydermaticis, prominulis, extus intusque atris, poro simplici pertusis; ascis cylindricis 70 ≃ 10; sporidiis 15 ≃ 6, continuis ellipticis obscuris.

Hab. in petiolis foliorum Acanthi mollis, Alger (Durieu).

63. **Anthostomella Pandani** (Rabh.) Sacc. *Sphæria Pandani* Rabh. 1090
Hedw. 1878, p. 45. — Gregaria; peritheciis minutis, innatis, atris, glabris; ostiolo brevi, depresso-conico; ascis fasciculatis, anguste cylindraceis, octosporis, tunica tenuissima; sporidiis monostichis, 9–14 ≃ 8, continuis, fuscis.

Hab. in Pandani furcati foliis, sociis spermogoniis, Calcutta.

64. **Anthostomella caulicola** (Ces.) Sacc. *Sordaria caulicola* Cesati 1091
Myc. Born. p. 23. — Gregarie effusa, erumpens, peritheciis depresso-hemisphæricis, brunneis, glabris, opacis, ostiolo minuto coronatis; ascis linearibus; sporidiis octonis, uniserialibus, ovoideis subcymbiformibus, simplicibus, fuscis, 4 ≃ 2–3.

Hab. ex epidermide caulino Monocotydoneæ cujusdam marcescentis erumpens, Sarawak (Borneo). — Si volva stellata adesset, certissime habuissem pro *Astrocystide mirabili*, B. Br. in *fungis Ceylanicis*, p. 87. Dubium prorsus me subigit, num in fungo Berkeleyano de vera volva, a matrice rite discreta, agatur, num disrumpendo epidermis caplina fortuito volvæ formam sumpserit (Ces.).

65. **Anthostomella duplex** Sow., sec. Crouan Finist. p. 25 (*Sphæria*). 1092
— Sparsa, peritheciis sparsis, tectis, globosis, nigris, ostiolo erumpente, latiusculo, hemisphærico: ascis.....; sporidiis brunneis, cymbiformibus, 2-guttulatis.

Hab. in Luzula maxima, Finistere, Gallia (Crouan); in petiolis Sparganii in Britannia (Sowerby).

66. **Anthostomella? picacea** (C. et E.) Sacc. *Sphæria* (Immersæ) *picacea* C. et E. New Jersey Fungi in Grev. — Peritheciis globosis, subgregariis, ligno superficie nigro-maculato immersis; ascis cylindraceis; sporidiis uniseriatis, cylindricis, obtusis, rectis, fuscis, 10 ≃ 4. 1093

Hab. in caulibus decorticatis Vaccinii, New Jersey. — An *Anthostoma*?

67. **Anthostomella? Visci** (Kalchbr.) Sacc. *Dothidea Visci* Kalchbr. Spep. Gomb. in Hedw. 1869, p. 117. — Peritheciis dense gregariis, confluentibusve, globoso-complanatis, epidermide rupta cinctis, atris, nucleo albo firmo; ascis amplis, cylindraceis octosporis, paraphysibus ramosis obvallatis; sporidiis ellipsoideis, majusculis, fuscis. 1094

Hab. in Visco in Ungaria.

68. **Anthostomella? Steinheilii** (Mont.) Sacc. *Sph. Steinheilii* Mont. Syll. n. 868 et in Ann., 2, I, p. 285, t. 13, f. 8 (*Sphæria*). — Innata, amphigena, convexa, oblonga lanceolatave, nigra nitida, macula fusca cincta; peritheciis minimis tectis atro-farctis, stromate fuscescente immersis, ostiolis aliis impressis; ascis....; sporidiis ellipsoideo oblongis, 2–3 guttatis. 1095

Hab. in foliis emortuis Chamæropis humilis, Bone (Gallia) (Steinheil). — Species perdubia. Cl. Montagne primitus sporidia pro ascis habuit et guttulas pro sporidiis, quæ emendavit in Sylloge sua. De colore quoque sporidiorum cl. auct. silet.

ASTROCYSTIS B. et Br. Fungi of Ceylon p. 123, t. 7, f. 36. (Etym. *aster* et *cystis*, ob indumentum stellatum peritheciorum). — Perithecia opaca, globosa, peridermio tecta, mox erumpentia papillata, sigillatim e volva stellata erumpentia. Asci cylindracei, octospori. Sporidia ovoideo-oblonga, fusca.

1. **Astrocystis mirabilis** B. et Br. Fungi of Ceylon l. c. n. 1078. — 1096

Hab. in culmis emortuis Bambusæ, Peradeniya (Ceylon). — Dense gregaria; volva («an ex peridermio orta?») sæpius in 6 lacinias fissa, perithecium unicum rarissime bina includens; perithecia obtusiuscule papillata pertusa (ex icone), minuta, $^1/_2$ mill. cr.; asci teretes deorsum attenuati; sporidia oblique monosticha, ovoideo-oblonga, 1-nucleata, 12–13 ≃ 6–7.

ANTHOSTOMA Nits. Pyr. Germ. p. 110 (Etym. *anthos*, flos, et *stoma*, ostiolum, ob formam ostiolorum *Anth. decipientis*). — Stro-

ma late effusum eutypeum v. valseum v. verruciforme, corticolum v. lignicolum. Perithecia membranacea, numquam vere carbonacea, stromate immersa. Asci typice cylindracei, octospori, paraphysati. Sporidia ellipsoideo-oblonga, fuliginea, — Spermogonia in paucis nota cytisporea.

I. *Euanthostoma:* stromate late effuso, eutypeo.

1. **Anthostoma melanotes** (B. et Br.) Sacc. Mich. I, 326, Fungi ital. t. 164, *Sph. melanotes* B. et Br. Fungi n. 634, t. 9, fig. 6 (1852). — Stromate effuso ligno omnino immerso, ejusque superficiem nigrificante ac maculas formante, plerumque elongatas, sæpe confluentes, fuscescentes vel tandem nigricantes, opacas, postremo intus quoque nigro-limitato; peritheciis exiguis, depresse globosis, omnino immersis, monostichis, laxe sparsis, ostiolo exserto, minutissimo, integro, conico v. hemisphærico, nitidulo, tandem perforato instructis; ascis cylindricis breviter pedicellatis, octospori, paraphysibus simplicibus, eseptatis obvallatis, 70 ≃ 7,5; sporidiis oblique monostichis, obtuse fusiformibus, rectis v. rarius nonnihil inæquilateralibus, nigricantibus, 12–14 ≃ 5–6. 1097

Var. *Schmidtii* (Auersw.) Nits. Pyr. Germ. p. 116, Sacc. Fungi italici t. 163. A specie vix differt ascis sporidiisque paulo angustioribus, primis 80 ≃ 4–5, postremis 13–14 ≃ 4–5.

Hab. species et varietas in ramis decorticatis Fraxini, Fagi, Quercus, Rhamni, Castaneæ, Alni, Pyri Mali in Germania, Helvetia, Italia, Britannia et Fennia.

2. **Anthostoma tomentosum** (Ehrenb.) Sacc. Cfr. Nits. Pyr. Germ. p. 117. — *A. melanoti* affine, differt stromatibus brunneo-ochraceis, pilis conidiophoris subtomentosis; ostiolis minoribus, rotundis, nitidis; ascis..... resorptis; sporidiis ovoideis, 6 ≃ 4, rectis fuligineis. 1098

Hab. in lignis in Germania (herb. Kunze).

3. **Anthostoma ferrugineum** Nits. Pyr. Germ. pag. 118. — Stromate immerso, effuso, in ligno superficie maculas ferrugineas, elongatas, striæformes, rarius ellipticas v. suborbiculares ac parum elevatas efficiente, parte immersa tamquam ligni substantia nigricante formata ac tandem nigro-limitata; peritheciis alte immersis, monostiche sed ordine inæquali dispositis, singulis in soros arctius confertis quorum mediis concentricis, marginalibus vero conniventibus, symmetricis, omnibus autem globosis, minutis, aterrimis, in collum longum, tenue, cylindricum subito attenuatis; ostiolis nunc vix exsertis, minutissimis, perforatis, umbilicatis, nunc contra elon- 1099

gatis, cylindricis vel nonnihil ventricoso-incrassatis, subtorulosis, dense stipatis; ascis cylindricis, pedicellatis, paraphysibus filiformibus, simplicibus, eseptatis, crassiusculis obvallatis, octosporis, 80–100 ≃ 8 p. sporif.; sporidiis recte v. oblique monostichis, ovalibus, rectis, nigricantibus, 12 ≃ 5–6.

Hab. in ligno putrido Carpini, Betuli et Salicis prope Münster et Œstrich (Germania). — Habitus fere *Endoxylæ*.

4. **Anthostoma venetum** Sacc. Mich. I, 25, Fungi ital. tab. 128. — 1100
Peritheciis laxe gregariis ligno immutato v. parum infuscato immersis, globosis, $^1/_4$ mill. diam., aterrimis, ostiolo conoideo-truncato, ligni superficiem attingente, dein perforato; ascis cylindraceis, 120–130 ≃ 18, breviter stipitatis, apice tunica integra crassiuscula truncatis, octosporis; sporidiis, oblique monostichis, ovato-oblongis, 30 ≃ 12–13, utrinque obtusiusculis, crasse 1–3-nucleatis (nucleis quandoque oblique rimosis), intense fuligineis.

Hab. in ligno putrescente Pyri v. Mali socia *Propoli versicolori* Fr. f. *lactea*, Conegliano, Italia bor. (Spegazzini).

5. **Anthostoma urophorum** Sacc. et Speg. Mich. I, 327, Fungi ital. 1101
t. 166. — Stromate superficiali in lignum breve penetrante, albicante, perithecia singula v. pauca ambiente, subcirculari, minuto; peritheciis ligno immersis, globulosis, $^3/_4$ mill. diam. nigris, ostiolo breve papillato parum emergente; ascis cylindraceis, 100–110 ≃ 8, breve stipitatis, apice, lumine integro, obtusis, paraphysibus guttulatis obvallatis, octosporis; sporidiis oblongo-ovoideis, 15–22 ≃ 5–6$^1/_2$, utrinque acutiusculis, 2-guttulatis, fuligineis, basi apiculo hyalino, raro sub-lobulato auctis.

Hab. in ligno decorticato (Ulmi?) putrescente, Conegliano, Italia bor., vere 1877, rarissime.

6. **Anthostoma atro-punctatum** (Schw.) Sacc. *Sph. atro-punctata* Schw. 1102
Carol. n. 44, Fr. S. M. II, 351, *Diatrype atro-punctata* Berk., Curr. Comp. Sph. n. 66, fig. 70. — Latissime effusa, lævis, ligni superficiem dealbans, intus aterrima, peritheciis sparsis, ostiolis punctiformibus nigris; ascis crasse cylindraceis, breve stipitatis; sporidiis submonostichis, ovoideo-navicularibus, 25–30 ≃ 8–9, fuligineis, granulosis.

Hab. in ramis decorticatis crassioribus, quercinis præsertim, Carolina, Ohio, Florida, New York, Amer. bor. — Latissime, interdum viginti pedum longitudine ambit arbores emortuas, adhuc stantes, subæquale, hinc inde rugulosum, margine nigro undulato limitatum; perithecia monosticha, non conferta, tecta stromate tenui

nitente, adeo rigido, ut cultro dissecto, strideat; ostiola convexa, lævia, nitida, superficiem nigro-punctatam reddunt.

7. **Anthostoma areolatum** Nits. Pyr. Germ. p. 115. — Stromate effuso, ligno immerso, parte immersa ligni substantia, specie immutata formata sed undique nigro-limitata, in superficie sæpe nonnihil elevata ac peritheciis parum protuberantibus tuberculosa, ceterum lævi, fere nitidula, mox nigrificata, maculas sistente, nunc breves, ovatas v. ellipticas, nunc contra elongatas sæpeque confluentes; peritheciis subglobosis v. sæpius a latere parum compressis, majusculis, irregulariter sed plerumque dense ac monostiche sparsis, parte superiore plus minus emergentibus, ligno v. stromatis strato extimo, tenuissimo, nigrificato tectis, ostiolo minutissimo, papillæformi, integro, tandem poro angusto pertuso in vertice coronatis (rarissime occurrunt ostiola elongata, cylindrica, recta v. fasciculatim erumpentia); ascis cylindricis, breviter basim versus attenuatis, octosporis, paraphysibus filiformibus simplicibusque obvallatis, 65–72 ≃ 9–10; sporidiis oblique monostichis, ovalibus, utrinque rotundatis, obtusissimis, rectis, nigricantibus, 10–12 ≃ 6–7. 1103

Hab. in ramis crassioribus decorticatis Fagi sylvaticæ, prope Münster (Germania).

8. **Anthostoma discincolum** (Schw.) Sacc. *Sph. discincola* Schw. Carol. n. 63, Fr. S. M. II, 368, Curr. Comp. Sph. n. 106, fig. 105. — Emerso-superficiale, peritheciis globosis confertis nigris truncato-annulatis, furfure cinereo-albo obrutis; ascis..... jam resorptis; sporidiis subgloboso-ovoideis v. ellipsoideis, 15 μ. long., atro-fuligineis. 1104

Hab. in disco truncorum cæsorom Mali in Carolina (America bor.). — Irregulare, subrotundum, rugosum, stromate tenui nigro in ligno profunde penetrans; perithecia sparsa, majuscula, urceolata, ore minuto orbiculari coarctato, apice aperta, sed ex massa farinacea (papilla insititia) obturata.

9. **Anthosoma exutans** (Cooke) Sacc. *Diatrype exutans* Cooke Fungi of Texas p. 143. — Late effusum, nigrum, subcuticulare; ostiolis punctiformibus, depressis; ascis cylindraceis; sporidiis ellipticis, utrinque attenuatis, brunneis, uninucleatis, 15 ≃ 8. 1105

Hab. in ligno vetusto quercino, Houston, Texas (Amer. bor.) et Maungaroa (Nova Zelandia).

10. **Anthostoma inquinans** Nits. Pyr. Germ. pag. 114. — Stromate effuso, interrupto, ambiente v. brevi, maculæformi, matrici omnino innato, superficie sola, atro-inquinata, immo aterrima, opa- 1106

ca, peritheciis irregulariter v. gregatim sparsis, paullo prominentibus taberculosa; stromatis maculis, saltem in matricis superficie, finibus certis haud circumscriptis; peritheciis exiguis, subglobosis, laxe sparsis ac vix umquam compressis, parietibus crassis instructis substrati strato supremo, haud fucato immersis, plus minus exstantibus, singulis tuberculo ligneo inclusis, ostiolis minimis, papillæformibus, integerrimis, tandem poro, pro ratione latiusculo pertusis, tubercula coronantibus; ascis cylindricis, subsessilibus, octosporis, membrana crassa, paraphysibus tenuissimis, filiformibus simplicibusque obvallatis, 140–180 ≃ 12; sporidiis oblique v. recte monostichis, ovalibus, utrinque rotundatis, obtusissimis, rectis, nigricantibus, 20 ≃ 7–8.

Hab. in ramis decorticatis Aceris campestris, Cappenberg (Germania) raro.

11. **Anthostoma italicum** Sacc. et Speg. Michel. I, 326, Fungi ital. t. 165. — Stromate superficiali, hinc inde varie effuso, nigricante; peritheciis gregariis cauli decorticato immerso-prominulis, globoso-depressis, $^1/_3$–$^1/_2$ mill. diam., papillulatis, nigris; ascis cylindraceis, 80–100 ≃ 8–10, breve stipitatis, apice obtusis, lumineque sub-trifoveolato, paraphysibus filiformibus obvallatis, octosporis; sporidiis ovato-oblongis, 25 ≃ 7–8, curvulis, 2- (raro 1-) guttulatis, utrinque brevissime hyalino-apiculatis, fuligineis. 1107

Hab. in caulibus herbarum majorum putrescentibus, Conegliano, Febr. 1877.

12. **Anthostoma intermedium** Nits. Pyr. Germ. p. 117. — Stromate ligno v. cortici innato et in eorum superficie ceterum haud mutata v. peritheciis protuberantibus parum pustulato-elevata maculas formante minutas, irregulares, approximatas, immo confluentes, ex cinereo sordide nigricantes, rarius peridermio adhærente, atro-inquinato tecto, sæpissime contra tandem, peridermio secesso, libero; peritheciis in singula macula paucis tantum, immo singularibus, minutis, depresse globosis, monostichis, matricis substantiæ incoloratæ nunc omnino immersis, nunc plus minus emergentibus, collo brevissimo ostioloque pro ratione majusculo, conico v. truncato, nitidulo; peritheciis 2–6 sæpe confertioribus, conniventibus, symmetricis; ascis cylindricis, breviter pedicellatis, paraphysibus filiformibus, simplicibus, unicellularibus, crassiusculis longe superatis, octosporis, 72 ≃ 8 p. sporif.; sporidiis oblique monostichis, ovalibus, rectis, fuscis, 12 ≃ 6. 1108

Hab. in ramis siccis Pruni spinosæ prope Münster (Ger-

mania). — Inter *A. melanotes* et *A. ferrugineum* ferè medium.

13. **Anthostoma pithodes** (B. et Br.) Sacc. *Diatrype pithodes* B. et Br. Fungi of Ceylon n. 1081. — Latissimum, stromate tenui nigro; superficie picea nitente; peritheciis oblongis; ostiolis papillæformibus; sporidiis magnis cymbiformibus apiculatis, 25 ≃ 12. 1109

Hab. in ligno putri, Ceylon et Borneo. — Affine *S. Clypeo* (Schw.) quæ vero sporidiis minutis, ellipsoideis, utitur.

14. **Anthostoma polynesia** (B. et C.) Sacc. *Sph. polynesia* B. et C. North Amer. Fungi n. 931. — Oblongum; peritheciis conditis; ascis filiformibus, sporidiis fuscis, oblongis, 7 μ. longis. 1110

Hab. in lignis in montanis Virginiæ, Amer. bor. — Format maculas oblongas, nigras ostiolis punctulatas.

15. **Anthostoma carbonescens** Nits. Pyr. Germ. p. 114. — Stromate longe lateque effuso, forma varia, irregulari, sæpe interrupto nec in ligni superficie finibus certis circumscripto, matrici omnino immerso ejusque stratum supremum ex fuligineo nigrificans ac tamquam in carbonem mutante; peritheciis grandiusculis, exacte globosis, rarius a latere compressis, sine ordine sparsis, nunc laxe distributis, nunc in cæspites v. series elongatas densius congregatis parte inferiore substrato immersis, superiore protuberante, ligni strato extimo, nigrificato, tenui tectis, in collum brevissimum subito angustatis, ostiolis hemisphæricis, papillæformibus, integerrimis, majusculis tandemque poro angustissimo pertusis; subinde peritheciis 2-3 tantum, immo singularibus stromate minimo, maculæforme exceptis; ascis cylindricis, breviter pedicellatis v. subsessilibus, octosporis, paraphysibus simplicibus, filiformibus obvallatis, 120 ≃ 10 p. sporif.; sporidiis monostichis, inæquilateralibus, atrofuscis, 16-18 ≃ 7-8. 1111

Hab. in ligno Carpini Betuli, Œstrich (Rhenogovia) ubi legit Fuckel.

16. **Anthostoma microplacum** (B. et C.) Sacc. *Diatrype* (Lignosæ) *microplaca* B. et C. Cuban Fungi u. 839. — Tenue, orbiculare, hypophœum, ostiolis minutis papillæformibus parce notatum; «ascis teretibus, stipitatis, 37-50 ≃ 4-5 octosporis; sporidiis ellipsoideis, inæquilateralibus, 5-6 ≃ 3,5-4, monostichis, olivaceo-fuligineis». 1112

Hab. in corticibus Laurorum in Carolina infer. et Cuba. — Affine *A. hypophlœo.*

17. **Anthostoma capnodes** (Berk.) Sacc. *Diatrype capnodes* Berk. Dec. of Fung. n. 70. Curr. Comp. Sphær. n. 69, fig. 74. — Effusum nigro-griseum, leviusculum, sed ostiolis prominulis punctulatum; 1113

ascis cylindraceis breve stipitatis, octosporis; sporidiis monostichis ellipsoideis 10–12 ≃ 5–6, fuscis dein atro-fuligineis, minute guttulatis.

Hab. in ramis, in Nova Hollandia (Australia). — Habitus fere *Diatrypes Stigmatis*.

18. **Anthostoma grandineum** (B. et R.) Sacc. *Diatrype grandinea* B. et R. North Amer. Fungi n. 851bis. — Late decorticans, transversim rimosum, ostiolis frequentissimis asperum; stromate subrufo; ascis clavatis; sporidiis fuscis subellipticis. 1114

Hab. in ram quercinis in Carolina infer., Amer. bor. (Ravenel). — Atiquot uncias latum, rufescens.

19. **Anthostoma anceps** Sacc. et Roum. Reliq. Myc. Lib. II, n. 50, t. XIX, fig. 2. — Peritheciis cortice innatis, globosis, $^3/_4$ mill. d., ostiolo obtuso pertuso parum emergente; ascis cylindraceis, breve stipitatis, 140–150 ≃ 11–14, paraphysatis, octosporis; sporidiis oblique monostichis ellipsoideo-oblongis, 22–25 ≃ 10–11, fuligineis, superne obtuse hyalino-apiculatis, crasse 1-guttatis. 1115

Hab. in corticibus crassioribus Coniferarum, Malmedy (Germania). — Affine *A. Veneto*, a quo sporidiis apiculatis recedit; habitu admodum accedit ad *Valsariam apiculatam*, sed sporidia continua.

20. **Anthostoma Phillyreæ** (Mont.) Sacc. *Diatrype Phillyreæ* Mont. Syll. crypt. n. 746 et in Fl. Alg. p. 458 *(Sphæria)*. — Effusum, serpens, convexo-depressum, ambitu repandum, nigrum, initio albo-punctatum, tandem inæquabile; peritheciis ovoideis, erectis in collum attenuatis, rufo-farctis, evacuatis, atris, nitidis; ostiolis impressis; ascis clavatis, 90 μ. longis; sporidiis 8 amygdaliformibus fuscis, altero latere gibbosis, 15 μ. longis. 1116

Hab. in cortice et ligno Phillyreæ mediæ, Philippeville Algeriæ (Durieu).

21. **Anthostoma defossum** (Dur. et Mont.) Sacc. *Sph. defossa* Dur. et Mont. Syll. Crypt. n. 820. Fl. Alg., I, p. 513, t. 26, f. 5 *a–h*. — Immersum; peritheciis globosis, in tuberculo ligneo aterrimo nidulantibus, intus cinereis, ostiolo in foveola vix prominulo; sporidiis cymbiformibus, fuscescentibus, biserialibus, 4-guttulatis, 20 ≃ 10. 1117

Hab. in caulibus Atropæ frutescentis, etc. Algeria (Durieu).

22. **Anthostoma cubiculare** (Fr.) Nits. Pyr. Germ. p. 119. *Sphæria cubicularis* Fr. S. M. II, 477. *Sordaria Fleischhackii* Auersw. Corticis crassioris v. ligni substantia in peritheciorum circuitu ac 1118

præsertim in superficie, ut videtur (fungi stromate), exalbescente ac tubercula sistente minuta orbicularia elevata albida, haud raro confluentia, peritheciorum ostiolis pulchre nigropunctata; perithe-ciis in tuberculo (stromate) nunc singularibus nunc contra grega-tim sociatis, globosis, confertis, 2-6, plerumque seriatim ordinatis, minutis, v. depressis, matrici omnino immersis, collo brevi, pro ratione crassiusculo, ostiolo aterrimo, minuto, hemisphærico, in-tegro, poro tandem pertuso, parum v. vix exserto; ascis cylindri-cis, breviter basim versus attenuatis, octosporis, paraphysibus fi-liformibus, tenuissimis, simplicibus stipatis, 160 ≃ 16; sporidiis obli-que monostichis, late ovalibus, rectis, utrinque rotundatis, obtusis-simis, rarius acutiusculis, fuscis, 18–22 ≃ 10–14.

Hab. in ligno putrescente Cratægi, Ulmi, Pini in Suecia, Germania, Gallia et Britannia.

23. **Anthostoma syciospermum** (Dur. et Mont.) Sacc. *Sph. syciosper-* 1119
ma Dur. et Mont. Syll. Crypt. n. 838, et Fl. Alg. p. 519. — Sub-globosum, erumpens, uniloculare, stromate ligneo extus aterrimo tectum; perithecio simplici sphærico, membranaceo, nigro-farcto, eva-cuato fulvo, ostiolo nullo; ascis clavato-cylindricis, sporidia oblon-go-attenuata, peponis seminibus simillima, brunnea, opaca, 25 ≃ 15 foventibus.

Hab. in ramulo Quercus cocciferæ, Alger (Durieu).

24. **Anthostoma sustentum** (Plow.) Sacc. *Sph. sustenta* Plowr. Calif. 1120
Sphær. Grevill. VII, p. 73. — Peritheciis immersis; ostiolis inter fibras dealbatas matricis erumpentibus; ascis cylindraceis, 150 ≃ 10–15; sporidiis ovoideis, atrofuscis dein nigricantibus, 20–25 ≃ 10–11.

Hab. in ramis dealbatis Arctostaphyli in California. — Stro-ma minus manifestum, ligni fibras dealbans.

25. **Anthostoma Oxyacanthæ** (Mont.) Sacc. *Sph. Oxyacanthæ* Mont. 1121
Syll. Crypt. n. 836 et in Cast. Supplem., p. 48. — Obtectum; peri-theciis sphæricis in ligno albescente semiimmersis confertis, extus intusque nigris opacis, ostiolo conico-acuminato; sporidiis ellipticis continuis brunneis, a latere visis coffeæformibus.

Hab. in ramis Cratægi Oxyacanthæ in Gallia australi (Castagne).

26. **Anthostoma Xylostei** (Pers.) Sacc. F. ital. t. 162. *Sph. Xylostei* 1122
Pers. Disp. p. 4. *Amph. Xylostei* Pers. De Not. Sfer. ital. p. 71, t. LXXIV. — Peritheciis sparsis vel adproximatis seriatis, ligno v. cortice insculptis, peridermio nigrificato tectis, dein emergenti-bus, sphæroideis, ostiolis conoideis, apice subtruncatis, prominulis,

poro exiguo hiantibus, fragilibus, atris; ascis brevissime pedicellatis, cylindraceis, 140–150 ≃ 12–14 μ.; sporidiis octonis, oblique monostichis, ellipsoideis, vel sphæroideo-ellipsoideis, sæpe plasmate bipartito et simulate uniseptatis, non constrictis, fuscis, 15–17 ≃ 9–11; paraphysibus gracilibus, brevibus.

Hab. in ramis corticatis v. denique decorticatis Loniceræ Xylostei et L. balearicæ in Suecia, Britannia, Gallia, Germania, Belgio, Fennia, Italia, Algeria. — Prima ætate ad *Anthostomellam* nutat.

27. **Anthostoma alpigenum** (Fuck.) Sacc. F. Ven. Ser. IV. 18, F. ital. t. 161. *Amphisphæria alpigena* Fuck. Symb. myc. App. I, p. 304. *Anth. oreophilum* Sacc. M. V. n. 228. — Peritheciis subgregariis sparsisve, sub epidermide nigrificata nidulantibus, *Anth. Xylostei* minoribus, globosis, nigris; ostiolis conico-papillatis, senio, papilla delapsa, latiuscule hiantibus; ascis cylindraceis, 120–130 ≃ 13, apice rotundatis, basi breviter attenuato-stipitatis, paraphysibus filiformibus, minute guttulatis obvallatis, 8sporis; sporidiis oblique monostichis, amplis, ovoideis, sed e latere conspicue compressis, 20–25 ≃ 12–13,5, utrinque obtusiusculis, sæpius curvulis, multiguttulatis, fuligineis. 1123

Hab. in ramis ramulisque Loniceræ alpigenæ et nigræ in sylvaticis alpinis Helvetiæ et Italiæ bor. — Ad *Anthostomellam*, saltem in ætate juniore, nutat.

28. **Anthostoma Hederæ** (Fuck.) Sacc. *Amphisphæria Hederæ* Fuck. Symb. Myc. App. I. p. 16. — Peritheciis e maximis, sparsis, sub epidermide nigrificata nidulantibus, deprèsso-globosis, nigris, subtilissime papillatis, demum perforatis; ascis cylindraceis, 8sporis; sporidiis oblique monostichis, ellipsoideis, cum guttulis 4, magnis, fuscis, 26 ≃ 10. 1124

Hab. in ramis siccis corticatis Hederæ Helicis, Neuchâtel (Helvetia) ubi legit cl. Morthier.

29. **Anthostoma hiascens** (Fr.) Nits. Pyr. Germ. p. 113. *Sph. hiascens* Fr. S. M. II. 477. — Stromate longe lateque effuso, indeterminato, ligni durissimi strato supremo nigrificato, in superficie tandem expallenti immerso, primum pilis longiusculis (conidiferis), ex fusco nigricantibus dense obsito; peritheciis omnino immersis depresse globosis, monostichis, nunc fere sparsis nunc contra, sed rarius, dense confertis, in collum brevissimum abrupte attenuatis; ostiolis valde incrassatis, grandiusculis, superficialibus, abbreviatis, rimis plerumque 4 alte ac radiatim quadripartitis, deinde fere 1125

cupiliformibus; sporidiis obtuse fusiformibus, obscure nigricantibus, rectis v. inæquilateralibus, 32–36 ≃ 8.

Hab. in trunco decorticato duro Fagi sylvaticæ in Suecia et Germania, ut videtur, rarius.

30. **Anthostoma decipiens** (De C.) Nits. Pyr. Germ. p. 111. Sacc. 1126
Myc. Ven. p. 142. t. XIV, fig. 43–46, F. it. t, 167. *Sphæria decipiens* DC. Fl. fr. II, 285. *Sph. floriformis* Sow. — Stromate latissime effuso, indeterminato, cortici crassiori innato eumque ex cinereo mox extus intusque atroinquinante, superficie tandem exalbescente primum vero pilis aterrimis conidiferis suberectis, septatis, longiusculis, apice simpliciter v. verticillatim ramosis, rarius omnino simplicibus dense vestito; conidiis subcylindricis, utrinque acutiusculis, curvulis, hyalinis unicellularibus, in pilis eorumque ramulis acrogenis; spermogoniis sub corticis strato extimo natis, plerumque oblongis, margine repandis, seriatim sæpe ordinatis, multilocularibus, auratis, locellis innumeris, ordine haud perspicuo dispositis; spermatiis lineari-cylindricis, tenuissimis, curvatis, in cirrhos v. glebas rubras v. aureas tandem eructatis; peritheciis, monostichis, densissime stipatis, crassiusculis, ovatis v. subglobosis, aterrimis, omnino immersis, collis longiusculis ostiolisque incrassatis, apice rimis plerumque 6 exaratis pulchreque radiato-stellatis; ascis cylindricis, brevi-pedicellatis, octosporis, paraphysibus filiformibus, simplicibus, basi septatis longissime superatis 60–70 ≃ 5–6 stip. 15–20 μ. longo; sporidiis ovalibus, rectis v. rarius nonnihil inæquilateralibus, oblique monostichis, nigricantibus, 7–8 ≃ 3–4.

Hab. in truncis decorticatis corticatisque Carpini, rarius in Acere, Betula, Quercu, Fago in Germania, Gallia, Italia, Britannia et Belgio.

31. **Anthostoma? scoriadeum** (Fr.) Sacc. *Sph. scoriadea* Fr. El. II. 1127
87, *Verrucaria conferta* Tayl. — Innatum, stromate late effuso latente nigro, peritheciis corneis confertis hemisphærico-prominulis nitidis pertusis albofarctis; ascis.....; sporidiis distichis, fusoideis sublageniformibus, rufo-brunneis, utrinque pallidioribus, 40–70 μ. longis, junioribus hyalino-obvolutis.

Hab. in cortice Betulæ albæ et lentæ in Britannia, Suecia. — Perenne! lichenosum, facie *Verrucariæ nitidæ* Ach., a qua vero abunde differt stromate subpulverulento nigro sub epidermide omnino latente, late effuso, ramos ambiente et cortici interiori innato. — Perithecia cornea! subglobosa, innata, hemisphærico-prominula, lævia, nitida, atra, ostiolo simplici pertusa, admodum

conferta, sed non confluentia. Nucleo albo evacuato, intus nigrescunt. An lichen? Cfr. Curr. Comp. Sphær. n. 188, fig. 187.

II. *Fuckelia* Nits. em.: stromate valseo, v. erumpenti-verruciformi.

32. **Anthostoma turgidum** (P.) Nits. Pyr. germ. p. 121. Sacc. F. it. t. 1128
168. *Sphœria turgida* Pers. Obs. myc. I. 17. *Valsa turgida* Fr. S. V. S. 412. *Sphœria sphinctrina* Fr. S. M. II. 400 (verisimiliter). — Stromate valseo, corticis interioris parenchymate, specie immutato formato ejusque strato supremo basi innato, pustulato ac peridermio arcte adhærente tecto, depresse hemisphærico, obsoleto; spermogoniis late conicis, multilocularibus; spermatiis cylindricis, curvulis, hyalinis, minimis, in sterigmatibus densissime cæspitosis, brevibus, simplicibus, unicellularibus acrogenis; perithecciis in singulo stromate 6–8, majusculis, globosis, circinantibus, confertis, adscendentibus, aterrimis, rigidis, ostiolis in discum minutum, concavum, ex fusco nigricantem conjunctis, rarissime plus minus exsertis, obtuse conicis; ascis cylindricis, subsessilibus, paraphysibus filiformibus, simplicibus, crassiusculis, eseptatis stipatis, octosporis, 100–120 ≃ 7–8; sporidiis monostichis, late ovalibus, rectis, utrinque rotundatis, nigricantibus, 8–12 ≃ 5–7.

Hab. in ramis corticatis Fagi sylvaticæ in Britannia, Suecia, Belgio, Italia, Gallia, Germania. — Huc forte spectat *Pyrenodochium atrum* Bon. Abhandl. p. 164.

33. **Anthostoma gastrinum** (Fr.) Sacc. Myc. Ven. Spec. p. 143, Tab. 1129
XIV, f. 52–57, Fungi ital. t. 169–170. *Sphœria gastrina* Fr. S. M. II. 379. *Sph. irregularis* Sow. *Hypoxylon gastrinum* Fr. serius. *Melogramma gastrinum* Tul. *Quaternaria Nitschkii* Fuck. (forma *corticola*), *Phœosperma gastrinum* Nits. — Acervulis majusculis, sparsis, subrotundis, repandisque applanatis, subinde confluentibus, cortici immersis lignoque adnatis et epidermide parum sublevata et nigrificata tectis; stromate corticolo e substantia corticali parum mutata efformato sed zona nigra, sæpe 2–3 acervvulos complectente, undique limitato; perithecciis majusculis sphæroideis, $^1/_2$ mill. diam., atris, intus nitidis, varia profunditate immersis, in quoque acervulo 8–42, ostiolis cylindricis pro loco plus minusve elongatis $^1/_3$–$^2/_3$ mill. rectis v. subconvergentibus, apice non incrassato in discum leniter convexum lævigatum obscure punctato-areolatum, nigrum, plerumque epidermide atroinquinata tectum desinentibus; ascis cylindricis breviter stipitatis, 90–120 ≃ 5, paraphysibus filiformibus simplicibus, guttulatis, obvallatis, 8spo-

ris; sporidiis oblongo-ellipsoideis, 10–14 ≃ $4^1/_2$–5, utrinque rotundatis, fuligineis, dein opacis, sæpissime 2-guttulatis.

Hab. in cortice trunci v. ramorum Ulmi, Rhamni, Carpini, Quercus, Castaneæ, Mori in Britannia, Belgio, Gallia, Germania, Suecia, Italia, Amer. bor. — Sec. Fuck. hujus st. conidicus sistit *Myxosporium sanguineum* Fuck. conidiis oblongis, 20 ≃ 8, hyalinis, stipitatis. — Species hæc statu normali et perfecte evoluto reperitur qualis supra descripta est, i. e. stromate in corticem omnino immerso et e substantia corticali parum mutata efformato; serius vero, cortice ex parte v. ex integro dejecto, conceptacula in ligni superficie libera evadunt, crasseq. pulvinata et *Melogramma* v. *Hypoxylon* quodammodo æmulantur: sed hoc Valseis quoque sæpissime accedere solet: satius igitur videtur *Anthostomati* subjungi quam inter Melogrammeas speciem litigiosam, sed typice valseam, collocari.

34. **Anthostoma tæniosporum** Sacc. Mycol. Ven. Spec. p. 143, t. XIV, f. 47–51. Fungi it. t. 171. — Acervulis minutis, sparsis, subrotundis repandisve, convexo-depressis, fuscis, libro immersis et epidermide nigrificata primo tectis, dein lacerata cinctis, stromate subvalseo nigricante, tandem subevanescente et perithecia subnuda relinquente; peritheciis submonostiche circinatis, in quoque acervulo 6–10, atris intus nitidis, diam vix $^1/_3$ mill., ovato-subrotundis, leniter conniventibus, ostiolis brevissimis, v. latentibus, tandem perforatis; ascis cylindricis basi attenuatis, breve stipitatis, 120 ≃ 15, 8sporis, paraphysibus crasse filiformibus simplicibus obvallatis; sporidiis recte v. suboblique monostichis ellipsoideis, plerumque 18–20 ≃ 10, rarius 15 ≃ 12, 2–3-guttulatis, primo luteolis, tandem fuligineo-nigricantibus, vitta angustissima alba sæpe tortuosa longitudinali (ex interruptione plasmatis orta) notatis. 1130

Hab. in cortice ramorum emortuorum Quercus pedunculatæ in sylva Montello (Ital. bor.), raro. — Ob sporidia magna ad *A. cubiculare* accedit sed stromate, sporidiorum vittis aliisque differt: ab *A. turgido* peritheciis minoribus et sporidiorum fabrica recedit: ab utroque loco natali diverso.

35. **Anthostoma ostropoides** Rehm, Ascom. n. 520 et in Diagn. n. 520. — Stromatibus albidis, convexis vel subglobosis, sæpe pisiformibus, 2–3 μ. diam., in cortice vel ligno immersis, denique, cortice dilacerato et elapso, fere sessilibus; peritheciis in stromate 1–4 monostichis, magnis, globosis, in colla discreta, usque ad 1 mill. long., 0,5 mill. lat. elongatis; ostiolis integris sæpe tuberculiformiter supra 1131

corticis superficiem exstantibus, poro concavo, griseo, haud pertuso; ascis clavatis, apice incrassatis, 8sporis, 180 ≃ 15; sporidiis 2-stichis, fuscis, ellipticis, 2-3 nucleis magnis præditis, 36 ≃ 10; paraphysibus longis, filiformibus, nucleatis, c. 3 μ. cr.

Hab. ad ramos siccos Rosæ caninæ in monte apud «Hammelburg» Franconiæ bavaricæ (Dr. Rhem.).

36. **Anthostoma linospermum** (Mont.) Sacc. *Diatrype linosperma* Mont. 1132
Syll. Crypt. n. 749 et in Fl. Alg. p. 467 (*Sphæria*). — Conico-truncatum, magnum; stromate lutescenti-olivaceo; peritheciis ovato-oblongis amplis intus atro-nitidis, in collum elongatum attenuatis, conceptaculo dimidiato cingente tectis, ostiolis hemisphæricis supra discum planum aut convexum aterrimum prominulis; ascis cylindricis, 160 ≃ 15; sporidiis 8, imbricatis, cymbiformibus 18-20 ≃ 3, fuscis.

Hab. ad corticem trunci Pistaciæ Lentisci, Mostaganem Algeriæ (Durieu).

37. **Anthostoma Eterio** (B. et Br.) Sacc. *Sph.* (confluentes) *Eterio* 1133
B. et Br. Fungi of Ceylon n. 1115. — Peritheciis in glebulam umbrinellam conglomeratis; ostiolis punctiformibus prominulis; sporidiis late ellipticis 11 ≃ 6,5.

Hab. in truncis, Habgalla (Ceylon).

38. **Anthostoma Plowrightii** (Niessl) Sacc. *Fuckelia Plowrightii* Niessl 1134
in Hedw. 1875, p. 130. *Dothidea tetraspora.* Plowr. Sph. brit. n. 18 (nec B. et Br.). — Stromatibus erumpentibus, 2-3 mill. lat. nigris, gregariis; peritheciis stromate immersis et cum eo concrescentibus, subsphæricis, vertice conico prominentibus; ascis cylindricis, longe stipitatis, octosporis, 140 ≃ 7-8, tunica apice incrassata, paraphysatis; sporidiis monostichis continuis oblongis, utrinque rotundatis, fuligineis, opacis, 10-14 ≃ 6-7.

Hab. in ramis Ulicis in Britannia.

39. **Anthostoma conostomum** (Mont.) Sacc. *Valsa conostoma* Mont. 1135
Syll. Crypt. n. 763 et Cent. II, n. 51, in Ann., 2, XIV, p. 321. — Gregarium, obovatum, initio velo tomentoso umbrino vestitum, demum nigrum transversim striatulum, bicorticatum, cortice exteriori seu conceptaculo rugoso fragilissimo; peritheciis in singulo conceptaculo paucis, 2-3, oblongo-quadratis, amplis; intus evacuatis fuscis, ostiolis conicis brevibus apice, nitidis; ascis magnis clavatis 8-sporis, sporidia subcymbiformia pellucida, nucleo tandem obscuro, foventibus.

Hab. ad cortices arborum juxta ripas amnis Conana et circa Cayennam (Leprieur).

40. **Anthostoma cercidicolum** (B. et C.) Sacc. *Diatrype cercidicola* B. et C. Peck. 25, Rep. p. 101. — Stromate nigro, applanato epidermide rupta cincto, subcirculari, 6–8 mill. diam., cortice nigrificato nidulante, ostiolis minutis depressis aut umbilicatis, denique perforatis; perithecüs sparsis, ellipticis ovatisve; sporidiis inæqualiter ovoideis, coloratis, 10 μ. longis. 1136

Hab. in Amer. bor. Buffalo, in cortice trunci ignoti.

41. **Anthostoma hypophlæum** (B. et Rav.) Sacc. *Diatrype hypophlæa* B. et Rav. North. Am. Fungi n. 852. — Suborbiculare tenue ostiolis prominulis exasperatum; «ascis cylindraceis, breve stipitatis 50–60 ≃ 5 p. sporif.; sporidiis elliptico-ovoideis, monostichis, 4–6 ≃ 2–3, olivaceo-fuligineis». 1137

Hab. in ramis putribus Magnoliæ glaucæ, Carolina infer., Amer. bor. — Format plagas suborbiculares, e peridermio erumpentes.

42. **Anthostoma Auerswaldi** Niessl Beitr. p. 55, tab. VI, fig. 45. — Stromate valseo, pustulato, peridermio adhærente tecto, corticis interioris parenchymate fere immutato formato; perithecüs in singulo stromate 4–6–10, mono- vel irregulariter distichis, majusculis, ½ mill. diam., subcarbonaceis, fragilibus, globosis, atris, ostiolo crasso cylindrico sæpe umbilicato erumpentibus; ascis cylindricis stipitatis, 8-sporis 110–113 ≃ 9–10 p. sporif.; sporidiis monostichis oblongis sæpe inæquilateralibus, utrinque acutiusculis vel apiculatis, unicellularibus, 24–28 ≃ 6–7, olivaceo-fuscis, circulo hyalino; paraphysibus crassis, guttulatis ascorum longitudine. 1138

Hab. in ramulis Alni glutinosæ, prope Gratz (Austria).

43. **Anthostoma insidiosum** (Crouan) Sacc. *Valsa insidiosa* Crouan Finist. p. 32. — Perithecüs 4–8 valsiformi-aggregatis, stromate flavido exceptis, peridermio denique erupto, tectis, sphæroideis, nigris ½ mill. cr., brevicollibus; ascis cylindraceis, apice truncatis, octosporis; sporidiis monostichis elliptico-oblongis, majusculis, brunneis. 1139

Hab. in ramulis emortuis Fagi sylvaticæ, Finistère (Gallia).

44. **Anthostoma rumpens** (Cooke) Sacc. *Diatrype rumpens* Cooke Fungi of Texas 143. — Ellipticum, tenue; ostiolis vix prominulis, cuticula rupta cinctis; ascis cylindraceis; sporidiis late amygdalæformibus, atro-brunneis, opacis, 15 ≃ 9. 1140

Hab. in corticibus Galveston Bay, Texas (Amer. boreali).

45. **Anthostoma Massaræ** (De Not.) Sacc. *Hypoxylon Massaræ* De Not. Sfer. ital. 17, t. 14. — Stromatibus cortice immersis, nigro-limitatis, obconicis, erumpentibus, disco orbiculari applanato nigro, et perithecüs protuberantibus colliculoso, ostiolis minute papillatis; 1141

peritheciis subglobosis, immersis, molliusculis, in quoque stromate 10–20; majusculis; ascis teretibus, stipitatis, paraphysatis octosporis; sporidiis monostichis ellipsoideo-oblongis, utrinque obtusiusculis, 20 ≃ 8, fusco-fuligineis.

Hab. in ramis corticatis, Valtellina, Ital. bor. (Massara). — Peritheciis non carbonaceis ab *Hypoxylo* differt et *Anth. gastrino* accedere videtur.

46. **Anthostoma adustum** (C. et P.) Sacc. *Diatrype adusta* C. et P. in Rep. on the St. Mus. — Pustulis minutis, prominulis, subconicis, nigricantibus, peridermio tectis, disculo minuto erumpente; stromate albido; ostiolis paucis, nigris; ascis cylindricis; sporidiis monostichis, ellipsoideis, fuligineis, 18–22 μ. longis. 1142

Hab. in ramis putridis, New Baltimore, Amer. boreali.

47. **Anthostoma microsporum** Karst. Fungi Fenn. 860, *Phæosperma microspora* Kart. Myc. Fenn. II, 53, *Ph. helvetica* Fuck. Symb. p. 224, t. VI, fig. 40 (teste Karst.). — Stromatibus per corticis epidermidem erumpentibus, valde tumidis, ventricosis, hemisphæricis, oblongisve, 3–4 mill. lat., 2–3 mill. cr., plerumque confluentibus crustam magnam constituentibus, fusco-nigris, intus concoloribus; peritheciis in stromatis inferiori parte nidulantibus, majusculis, ovatis, monosticho-stipatis, concoloribus, ostiolis longis, in stromatis culmine dense laxeque exsertis, conicis, obtusis, 1 mill. altis, concoloribus, pertusis; ascis longissime stipitatis, elliptico-oblongis, 8sporis, 22 ≃ 5 p. sporif.; paraphysibus filiformibus; sporidiis inordinatis, quandoque transversaliter jacentibus, oblongo-ovatis, utrinque obtusissimis, continuis, biguttulatis, fusco-olivaceis, 5 ≃ $2^1/_2$. 1143

Hab. in cortice crassiore Alni et Betulæ in Fennia et Helvetia.

48. **Anthostoma rhenanum** (Fuck.) Sacc. *Fuckelia rhenana* Fuck. Symb. myc. p. 224. — Stromatibus erumpentibus pulvinatis; ascis cylindraceis, oblique stipitatis, 8sporis, 176 ≃ 18; sporidiis monostichis, oblongo-ovatis, curvatis, utrinque oblique apiculatis, simplicibus, 2-4guttulatis, atro-fuscis, 30 ≃ 12. 1144

Hab. in ramis siccis Aceris Pseudoplatani et Fagi sylvaticæ, rarius prope Mappen et Œstrich (Rhenogovia). — Sporidia diu circulo inæquali hyalino obvoluta.

49. **Anthostoma amœnum** (Nits.) Sacc. *Fuckelia amœna* Nits. in Fuck. Symb. mycol. p. 224, t. III, fig. 5. — Peritheciis majusculis, 4–6 in acervulo erumpente, liberis subconfluentibusve et stromate niveo demum evanescente insidentibus, ostiolo crasso, cylindraceo- 1145

conico, obtuso, perforato coronatis, nigris, opacis; ascis sessilibus, oblongis, 138 ≃ 20; sporidiis 8, submonostichis, ovatis, utrinque breviter apiculatis et irregulariter mucosis, parum curvatis, simplicibus, uniguttulatis, atro-fuscis, 30 ≃ 14.

Hab. in ramis siccis Fagi sylvaticæ, rarius, prope Œstrich (Rhenogovia).

50. **Anthostoma Ellisii** Sacc. *Diatrype microspora* Ellis, nec Karst. (Anth.) in Bull. Torrey. Cl. 1881, p. 74. — Stromate tuberculiformi 5-6 mill. diam., olivascenti-nigro; peritheciis 15-20, stromate subimmersis, oblongis, subcoriaceis, stipatis; ostiolis papillatis, prominulis; ascis linearibus, angustis, tenuistipitatis, 35-45 ≃ 5; sporidiis monostichis, obliquis, oblongis, obtusis, pallide fuligineis, 1-nucleatis, 4-5 ≃ 1,7-2. 1146

Hab. in ramis Alni, Wells, Amer. bereali (Blake).

51. **Anthostoma amygdalinum** (Cooke) Sacc. *Melanconis amygdalina* Cooke in Grev. V, p. 55, t. 81, fig. 4. — Laxe circumscriptum, stromate pallido; peritheciis circinantibus, globosis; ostiolis convergentibus in disco fusco, prominulis; ascis cylindraceis; sporidiis amygdalæformibus, fuligineis, 22-25 ≃ 12, appendicula tenui hyalina filiformi utrinque auctis. 1147

Hab. in cortice Liquidambaris, Carolina infer. (Ravenel). — Appendiculæ 20-30 μ. long.

52. **Anthostoma denigrans** (Curr.) Sacc. *Diatrype denigrans* Curr. Linn. Trans. XXII, n. 74, fig. 78, Cooke Handb. n. 2450. — Peritheciis conicis vel depressis, ligno penitus immersis, lignum in pustulas minutas nigras elevantibus, lineaque nigra circumscribentibus; ostiolis longis corticem penetrantibus; ascis teretibus, breve stipitatis, 8sporis; sporidiis monostichis, ellipsoideis, 12-13 μ. longis, stipatis, 2-plurinucleatis, vel enucleatis, olivaceo-fuligineis. 1148

Hab. in ramis in Britannia.

53. **Anthostoma dryophilum** (Curr.) Sacc. *Diatrype dryophila* Curr. Linn. Trans. XXII, p. 279, fig. 75, Cooke Handb. p. 2449. — Peritheciis immersis ovoideis vel subglobosis, stromate fusco-viridi exceptis, pustulas compactas sparsas formantibus; ostiolis longis, convergentibus, corticem perforantibus; ascis linearibus, breve stipitatis, 8-sporis; sporidiis monostichis, oblongis, angustis, 2-nucleatis, olivaceo-nigricantibus, 10-15 ≃ 3-4. 1149

Hab. in ramis putrescentibus Quercus in Britannia.

XYLARIA Hill. Hist. Plant. (1773), p. 62 et 63, Fr., Nits. etc. (Etym. *xylon*, lignum, quia fungus lignosus). — Stroma erectum, teres, clavatum v. subglobosum, sæpius stipitatum, tuberosum v. coriaceum; perithecia stromate immersa v. adnata, carbonacea, papillata; asci teretiusculi, typice octospori. Sporidia ovoidea v. subnavicularia, continua, fuliginea. Conidia sæpissime stromatis summitatem occupantia, læticoloria. — Genus vastissimum; species europeæ paucæ, tropicæ multo copiosiores.

Sect. I. *Xyloglossa* Fr. N. Symb. 124: clava undique fertili, stipite glabro.

A) Basis stipitis subæqualis.

1. **Xylaria polymorpha** (Pers.) Grev. Flor. Edin. p. 35, Nits. Pyr. 1150
Germ. p. 17, *Sph. polymorpha* Pers. Comm. p. 17. — Stromatibus 2–6, rarius pluribus basi in cæspites connatis, rarissime solitariis, erectis, crassis, glabris, ex argillaceo-fusco nigricantibus, nunc simplicibus ac teretibus, basi apiceque plus minus attenuatis v. obtusissimis, subcylindricis, nunc obovatis, compressis, emarginatis v. furcato-ramosis, nunc denique subglobosis; clavula perithecigera, excepto stipite brevissimo v. subnullo, stroma integrum formante, peritheciis prominulis rugulosa; hymenio conidifero æruginoso-cinereo; conidiis obovato-subglobosis, minutissimis; peritheciis majusculis, densissime stipatis, ovatis v. subglobosis, ostiolis papillæformibus; ascis cylindricis, longissime pedicellatis, octosporis, 140–180 ≃ 8–10 p. sporif.; sporidiis monostichis, subfusiformibus v. fere ovatis, utrinque acutiusculis, rarius obtusis, inæquilateralibus, immo curvulis, fuscis, 20–32 ≃ 5–9.

Var. *α*) *acrodactyla* Nits. l. c. Stromate elongato-fusiformi v. e basi incrassata apicem versus sensim attenuato, tereti, forma regulari; cæspitosa; sporidiis 20–24 ≃ 6–7.

Var. *β*) *pistillaris* Nits. l. c. Stromate cylindrico, apice rotundato, obtusissimo, in stipitem brevissimum v. subnullum plerumque sensim attenuato, forma regulari; cæspitosa; sporidiis 24–28 ≃ 8.

Var. *γ*) *Mentzeliana* Tul. Sel. Fung. Carp. II, p. 9. Clavula subcylindrica, crassissima, apice obtusissima, in stipitem brevem subito attenuata, plus minus deformi; cæspitosa; sporidiis 24–32 ≃ 8.

Var. *δ*) *spathulata* Pers. Obs. myc. II, p. 64, t. II, f. 2. Stromate compresso, obovato, apice obtusissimo, emarginato v. furcato, immo ramoso, clavulas 2–3 gerente, in stipitem nunc brevissimum nunc elongatum sensim attenuato, deformi; cæspitosa v. solitaria; sporidiis 24–28 ≃ 8–9.

Var. ε) *hypoxylea* Nits. l. c. Stromate subgloboso, tandem tumuloso-rimoso, deformi, in stipitem brevissimum subito attenuato; solitaria; sporidiis 24–30 ≃ 7–9.

Hab. species cum varietatibus in basi truncorum putrescenti in tota Europa, Asia merid., Java, Australia, Tasmania, America meridionali et boreali.

2. **Xylaria leptopus** (Fr.) Sacc. *Hypoxylon leptopus* Fr. Nov. Symb. 231. — Suberoso-lignosa, clava obtusa lævi atra, velo contiguo tenuissimo glabro innato ærugineo-griseo primo obducta, intus solida fibroso-radiosa alba, stipite discreto glabro gracili basi scutato; peritheciis immersis, ostiolis minutis papillæformibus; sporidiis generis, curvulis. 1151

Hab. in India occidentali (Krebs). — Fungus 2–3 unc. altus, (stipes $^1/_2$ unc.) stipite gracili, tegumentoque glabro ærugineo-griseo a *X. polymorpha*, cui accedit, distinguitur.

3. **Xylaria curta** Fr. Nov. Symb. 126. — Subsessilis, verticalis, oblonga, solida, atra, stromate turgido obtuso papuloso-corrugato, intus solido albo, peritheciis globosis immersis periphæricis, ostiolis papillæformibus; ascis sporidiisque ut *X. polymorpha* sed minoribus. 1152

Hab. ad truncos in insula Oceanica Oahu (Didrichsen). — *X. polymorphæ* affinis, $^1/_2$–$^3/_4$ unc. alta, 3 lin cr.

4. **Xylaria siphonia** Fr. Nov. Symb. 126. — Sessilis, verticalis, cylindrica, stromate cavo! æquali obtusiusculo lævi glaberrimo æneofusco, ex ostiolis prominulis nigro-punctata; peritheciis periphericis globosis; sporidiis, oblongis, opacis, continuis. 1153

Hab. ad ligna muscosa in ins. oceanica Pulo Milu (Didrichs.). — Affinis *X. papyriferæ*, 1–$1^1/_2$ uncias longa, 2 lin. crassa.

5. **Xylaria protea** Fr. Nov. Symb. 125. — Stromate suberoso-indurato lanceolato, obtuso, corrugi, nudo, atro, intus albo, stipite tenui æquali glabro; peritheciis globosis subimmersis periphericis, ostiolis prominulis depresso-hemisphæricis; ascis linearibus; sporidiis uniserialibus oblongis, curvulis, opacis. 1154

Hab. ad truncos in Costa Rica prope Antillas (Œrsted). — *X. corniformi* satis affinis.

6. **Xylaria turgida** Fr. Nov. Symb. 124. — Stromate suberoso indurato ovali, sordide gilvo ex ostiolis prominulis nigro-punctato, ceterum lævi, intus cinereo, stipite tenui brevi, glabro-nitente; peritheciis immersis globosis periphericis; sporidiis oblongis, fuscis, minutis. 1155

Hab. in insulis Nikobaricis (Didrichs.). — Stipes 2–3 lin. longus, 2 lin. cr., clava $1^1/_2$–2 unc. alta, 1 unc. cr. Affinis *X. euglossæ*.

7. **Xylaria variabilis** Welw. et Curr. Fungi Angol. pag. 280, t. 18, fig. 7. — Simplex vel ramosa, tota glabra, 2–6 unc. longa, fuliginoso-atra, peritheciis . . , . . . non visis; substantia medullari siccando contracta. 1156

Hab. sparsa ad truncos vetustos dejectos cariosos in sylvis primitivis de Quisucula prope Bango, Golungo alto (Angola).

8. **Xylaria axillaris** Welw. et Curr. Fungi Angol. p. 279, t. 17, fig. 24–25. — Stromate suberoso, nigro glabro (sterili longiore et fragiliore); peritheciis irregulariter sparsis, protuberantibus, globosis, mammillatis; sporidiis nigro-fuscis, elliptico-acuminatis, 25–30 ≃ 12–14. 1157

Hab. ad axillas ramulorum arboris e familia Artocarpacearum juxta ripas fluvii Coango, Golungo alto (Angola). — Affinis *X. Hypoxylo* v. *uviformi* Mont. sed perithecia laxiora et sporidia majora.

9. **Xylaria arenicola** Welw. et Curr. Fungi Angol. p. 280, t. 17, fig. 5–6. — Stipite fragili, elongato, nigro-fusco, glabro, profunde sepulto, 1–3 unc. longo; capite fusco, maculato, ostiolis minutis nigris scabro, $^1/_4$–$^1/_2$ unciæ longo, conico vel subcylindrico, apicem versus acuminato vel rotundato, aliquando leviter curvato, toto fertili; peritheciis nigris, subglobosis; sporidiis minutis, nigro-fuscis, cymbiformibus, 5 μ. longis. 1158

Hab. ad terram sabulosam humidam prope Cazella, Pungo Audongo (Angola) — Ad *V. polymorpham* accedit.

10. **Xylaria Myosurus** Mont. Syll. Crypt. n. 700. — Simplex, cornea, atra, myosuroidea, subsessilis; peritheciis exiguis, immersis, ostiolis subprominulis, nitidis; ascis clavatis diffluentibus, paraphysibus ramosis obvallatis; sporidiis 8 seriatis oblongis ob guttulam oleosam specie septatis, 10 μ. longis, 1159

Hab. ad lignum denudatum, Cayenna (Leprieur).

11. **Xylaria melanaxis** Ces. Myc. Born. p. 16. — Sparsa, nigra, quatuor, usque quinque pollices alta, pro $2^1/_2$ ad stipitem sæpius tortuosum, pro residuo ad clavulam spectantes; stipite anguloso, glabro, nitente, sensim in clavulam abeunte cylindraceam, obtusam longitudinaliter rugosam, ostiolis emergentibus exasperatam; stromate extus carbonaceo, intus fuscescente, axi filiformi nigro percurso. 1160

Hab. in truncis Sarawack, Borneo.

12. **Xylaria marasmoides** B. et Cooke. Fungi of Braz. n. 406. — Sparsa, stipite setaceo penetrante; capitulo globoso primum dealbato, dein secundum perithecia condita fisso. 1161

Hab. in corticibus, Capana Brasiliæ. — Stipes vix 7 mill. altus, penetrans apice minute collariatus; capitulum 1 mill. diam. Species quam *X. aristata* minor, ostiolisque non exertis.

13. **Xylaria intermedia** Ces. Myc. Born. p. 16. — Hinc *Xylariæ massulæ* Ces., illinc *Hyporylo pauxillo* Ces. forma adproximans; sporidiis 3 ≃ 2; pulvillis irregulariter globosis, 2 mill. diam., atris, superficie rudi, intus albidis, compactis. 1162

Hab. ad Sarawak a Kutein, Bornei.

14. **Xylaria hæmorrhoidalis** B. et Br. Fungi of Ceylon n. 1035. — Subglobosa vel oblonga obtusissima, sessilis, rugosiuscula. 1163

Hab. in ligno putri, Ceylon, — Exemplaria verisimiliter conidiophora, nuda deorsum, sursum valde ramosa; conidiis copiosis globosis 5 μ. diam.

15. **Xylaria Gardneri** Berk. Fungi of Ceylon n. 1038. — Stipite elongato ramoso radicante; capitulis cylindricis, primum dealbatis rugosis; ostiolis papillæformibus, demum nigricantibus; sporidiis late cymbiformibus, 5 ≃ 4; conidiis 5 μ. diam. 1164

Hab. in ligno putri, Peradenya (Gardner, Beccari). — Alta 7–12 cent., radix sæpe æquilonga; capitulum 5–10 cent. long. Exemplaria conidiophora sunt acicularia et angustiora. — Var. *minor* (*Sph. Gardneri* Berk. Dec. of Fungi n. 190). Suberosa, clavulis simplicibus cylindricis obtusis, rugosis, 3–5 cent. long., griseo-nigris, a stipite discretis, ostiolis obtusiusculis; stipite elongato 3–5 cent. longo e radice sclerotiiformi oriente, atro, glabro; sporidiis brevibus, minutis. — In Ceylon.

16. **Xylaria guyanensis** Mont. Syll. Crypt. n. 679 et Cent. II, n. 27, tab. 9, fig. 2. — Suberosa, clavæformis, maxima, crassa, simplex, subcompressa, lævis, fuliginoso-atra, intus alba; stipite lacunoso-plicato; peritheciis periphæricis globoso-depressis immersis, ostiolis in disco excavato plano, primo albo-velato, demum nigro prominulis; ascis teretibus; sporidiis generis, 18 ≃ 4–5. 1165

Hab. ad truncos putridos in Guyana (Leprieur).

17. **Xylaria fulvella** B. et C. Cuban Fungi n. 788. — Clavata, rubiginosa, papillata; peritheciis semiprominulis, ostiolis nigris; stipite cylindrico, pallide fulvo, lineato-rugoso; sporidiis oblongis 7,6 μ. longis. 1166

Hab. in ligno putri, Cuba, Alabama. — Affinis *X. phosphoreæ* Berk. a qua differt defectu anuli albi circa ostiolum.

18. **Xylaria phosphorea** Berk. Austr. Fungi n. 232. — Rufa; stipite brevi, cylindrico, striato in clavam brevem sursum dilatato; peritheciis superficiem in verrucas læves elevantibus; disco pallido, ostiolis prominulis nigris. 1167

Hab. ad truncos, Victoria, Australiæ, (Müller).

19. **Xylaria papyrifera** (Link. et Fr.) Fr. Nov. Symb. p. 126, *Sph. papyrifera* Link. et Fr. Linnæa, 1830, p. 536. — Carnoso-suberosa, clavæformis, simplex, lævis, nigrificans; intus determinate cava, stipite glabro; peritheciis peripheriçis, immerso-prominulis, stipatis, globosis, atris, ostiolis punctiformibus. 1168

Hab. in Brasilia ad basim truncorum (Beyrich et Lund). — Tres uncias alta; *X. Gompho* subaffinis sed pluribus notis diversa.

20. **Xylaria pumila** (Fr.) Sacc. *Sph. pumila* Fr. in Linnæa, 1830, p. 538. — Mollis, fragilis, clavata, difformis, glaberrima, atra, intus alba; stipite brevi; peritheciis peripheriçis pallidis, prominulis; ascis *Hypoxylorum* (nec ut in *Hypocreis).* 1169

Hab. in ramis virescentibus Lantanæ mutabilis in Brasilia (Beyrich).

21. **Xylaria portoricensis** Kl. Fungi Portor. pag. 364 (Linnæa). — Clavis magnis obtusis, pallide fuscis fistulosis, in stipitem brunneum glabrum satis longum basi incurvum attenuatis; peritheciis magnis, subinde confluentibus; ostiolis minutis, atris; sporidiis elongatis, nigricantibus. 1170

Hab. ad ramos vetustos, prope Naguabo (Portorico). — Stipes 1–2 pollices longus, crassitudine pennæ anserinæ; clava 1–2 poll. longa, 6–10 lin. cr. velo farinaceo gilvo-fusco obducta.

22. **Xylaria fistuca** Berk. Decad. n. 482. — Clavula regulari, sursum incrassata obtusa, lineis obscurioribus ostiola gerentibus picta; stipite cylindrico abrupto; ostiolis superficialibus; sporidiis minutis, breve cymbiformibus. 8–9 μ. longis. 1171

Hab. in lignis Nepal, Myrong, India. — Totus fungus 30–32 mill. altus, *X. corniformi* affinis.

23. **Xylaria clavicularis** Kl. Fungi Portor. p. 365 (Linnæa). — Clavis magnis fistulosis, utrinque attenuatis, stipiteque velo farinaceo sordide fusco obductis; peritheciis parvis sparsis globosis; ostiolis minutissimis atris; sporidiis fusiformibus. 1172

Hab. ad ligna putrida prope Naguabo (Portorico). — Stipes pollicaris, 2–3 lin. cr.; clava 1–1½ poll. long., 4–5 lin. cr.

24. **Xylaria abnormis** Berk. Dec. n. 618. — Pallida, hic illic ostiolis depressis nigris notata, cerebriformis, subglobosa, nodulosa, durissima, intus concolor; peritheciis pallidis oblongis crassis; ascis gracilibus; sporidiis minutissimis, 5 μ. longis, monostichis. 1173

Hab. in ligno putri, Panuré, Brasilia. — Nonnullis notis ad *Hypocreaceas* vergit.

25. **Xylaria piliceps** Berk. Challeng. not. III, n. 186. — Clavula subturbinata, coffeata, rimosa, molli, fragili; ostiolis subprominulis punctata; stipite gracili concolori laccato, rimoso, contextu pallido. 1174

Hab. in truncis, Aru prope Moluccas. — Stipes 2 cent. altus; clavula 12 mill. alt., 8 cr. Sporidia non reperta.

26. **Xylaria coronata** West. Prodr. Fl. Bat. Fungi pag. 42, Kickx Fl. crypt. crypt. Flandr. I, 311. — Stromate elongato, tenui, stipitiformi, tortuoso et inæquali, fusco-nigricante intus albo; capitulo conico apice laciniis 3–5 digitiformibus 2 mill. longis coronato; peritheciis raris, immersis, prominulis, ostiolo papillato; ascis cylindricis, 8sporis 100 μ. longis; sporidiis monostichis fuligineis ovoideis, 15 μ. longis. 1175

Hab. in radice putri lignosa, Maastricht in Belgio (Westendorp).

27. **Xylaria conocephala** B. et C. Cuban Fungi n. 781. — Maxima, cæspitosa, e basi obtuse conica, umbrina, rimulosa, exsiccatione hic illic contracta; ostiolis sparsis prominulis; stipite brevi longitudinaliter sulcato-rugosa. 1176

Hab. in ligno putri Cuba, Barcellos Brasiliæ.

28. **Xylaria cubensis** Mont. Syll. Crypt. n. 782 et Cent. II, n. 29, et Cuba, p. 347, t. 13, f. 1. — Clavæformis, junior cæsio-pruinosa obtusa, adulta longitrorsum medio sulcata v. subbipartita, lævigata, nuda, nigro, initio cæsio-pruinosa, breviter stipitata, clavula intus cava crusta tenui secedente fragili obducta; peritheciis perphericis confertis globosis strato interiori pallido immersis, ostiolis punctiformi-prominulis; sporidiis generis. 1177

Hab. ad ligna putrida, in Cuba (Ramon de la Sagra), in Guyana (Leprieur).

29. **Xylaria allantoidea** Berk. Cuban Fungi n. 782, *Sph.* (Cordyceps) *allantoidea* Berk. Exot. Fungi Hook. p. 397 (1839). — Stromate clavato, obtuso, compacto, nigro-crustato, coriaceo, stipite brevissimo glabro; peritheciis minutis globosis, ostiolis minutis prominulis. 1178

Hab. in Brasilia, S. Domingo, Guyana, Cuba, Ceylon et Borneo. — Stroma 100 mill. altum, 1 cr., denique intus cavum.

30. **Xylaria biceps** Speg. Fungi Arg. Pug. IV. n. 137. — Stromatibus dense gregariis, extus atris, opacis, intus candidis, basi parce ramosis; ramis erectis longiusculis, compressis, 10–30 mill. long., 1–1,5 lat., 0,5 crass., ruguloso-subtortis, glaberrimis, apice simplicibus v. bifidis v. brevissime bis dichotomis, primo vertice compressissimo, dilatatulo, truncato, roseolo-aurantio v. roseo-albo (conidiis nondum visis), dein biclavuligero; clavulis elliptico-cylindraceis, sæpius e latere compressiusculis, 8–10 mill. long., 2 mill. lat., 1–1,5 mill. crass., binis in quoque ramulo, dorso connato-confluentibus, ad tertium v. usque ad medium, sursum liberis ac divergentibus, apice breviter conico-attenuatis, deorsum abrupte subtruncato-rotundatis, ac in ramulo coarctato-attenuatis, undulatis, parce minuteque hinc inde papillulatis, extus atris, opacis, glaberrimis, intus primo spongioso-flocculoso farctis, dein subvacuis, albis; peritheciis subglobosis, 350–400 μ. diam., atris, crassiusculis, coriaceo-membranaceis, contextu minute parenchymatico, fuligineo-olivaceo; ascis cylindraceo-clavatis, sursum obtusiusculis, deorsum longe attenuato-stipitatis, 70–90 ≃ 6–8 p. sporif., stip. 44–45 ≃ 2–5. octosporis, paraphysibus filiformibus obvallatis; sporidiis oblique monostichis, elliptico-navicularibus, quandoque curvulis, utrinque obtusiusculis, 14–15 ≃ 5, opace fuligineis. 1179

Hab. in ollis ligneis plantarum cultarum en el Patio «Emprenta Coni» Buenos-aires, Argent. — A *Xylaria* (Sphæria) *diceras* (Pers.) videtur valde distincta.

31. **Xylaria diceras** (Lév.) Fr. Nov. Symb. p. 128, *Sph.* (Cordyceps) *diceras* Pers. mss. Lév. Ann. Scienc. nat. 3, 1845, p. 43. — Nigra, stipite elongato, compresso, nudo, sursum bifido, clavulis divaricatis clavatis obtusis, rugoso-undulatis; peritheciis globosis immersis, ostiolis minimis sparsis prominulis; sporidiis in ascis linearibus paraphysatis, navicularibus utrinque acutis, opacis. 1180

Hab. in Hispaniola, ad truncos (Poiteau). — Stipes 3–4 cent. longus.

32. **Xylaria divaricata** (Fée) Sacc. *Sph. divaricata* Fée Not. sur trois esp. nouv. de Sphæria exot. p. 1. — Suberosa, bifurcata, rugosissima, atro-rubra, depressa; clavulis divaricatis, acuminatis; peritheciis inæqualibus, remotis, crassis; sporidiis ovoideis, subfuscis. 1181

Hab. in S. Domingo ad ligna vetusta. — Stroma 1 dec. altum.

33. **Xylaria Domingensis** (Berk.) Sacc. *Hypoxylon Domingense* Berk. enum. Fungi St. Domingo p. 11. — Maxima, cylindrico-clavæfor- 1182

mis, deorsum furcata, rigida, laccata, fusco-purpurea ostiolis prominulis asperula, sursum involuta.

Hab. in ligno putri St. Domingo (Sallé).

34. **Xylaria echinata** (Lév.) Fr. Nov. Symb. 126, *Sph.* (Cordyceps) *echinata* Lév. Ann. Scienc. nat. 3, 1845, p. 43. — Cæspitoso-fasciculata, clavulis ovatis obtusis nigris subsessilibus, peritheciis stromate griseo immersis, ostiolis exertis conicis; ascis paraphysatis octosporis; sporidiis ovoideo-oblongis, monostichis, opacis. 1183

Hab. Java, ad cortices (Korthals). — Affinis *X. anisopleurœ* Mont. Clavulæ 4–7 cent. long., 2–4 cr.

35. **Xylaria escharoidea** (Berk.) Sacc. *Sph. escharoidea* Berk. Notic. Fungi Herb. British Museum p. 385 (1843), *Clavaria pistillaris membrana escharoidea tecta* Fl. zeyl. — Suberosa, simplex, clavula cylindrica apiculata ex ostiolis conicis prominulis scabra, pallida; stipite elongato, cylindrico, radicato. 1184

Hab. in Ceylon (König). — Sporidia nondum evoluta.

36. **Xylaria fistulosa** (Lév.) Fr. Nov. Symb. p. 126, *Sph.* (Cordyceps) *fistulosa* Lév. Ann. Scienc. nat. 3, 1845, p. 42. — Suberosa, simplex, clavæformis, crustaceo-laccata, nigro-opaca, cava, cum stipite brevi nudo confluente, peritheciis globosis, ostiolis prominulis confertis atro-nitidis; ascis paraphysatis; sporidiis oblongis monostichis, 1-guttatis. 1185

Hab. in Java ad truncos. — Inter *X. proteam* et *siphoniam* media; stroma 4–9 cent. altum. 5–7 mill. cr.

37. **Xylaria fissilis** Ces. Myc. Born. p. 16. — Cæspitosa, clavulis nigrescenti-brunneis, linearibus, 5–6 cent. altis, quatuor usque quinquè millimetra latis, stipitatis, torulosis et transverse rugosis, obtusis, sæpius longitrorsum sulco dimidiatis, stromate carbonaceo, intus secernibile, filamentoso; peritheciis brunneis, depresso-globosis, ostiolis vix prominulis; sporidiis $20 \simeq 5$ (teste Cooke). 1186

Hab. Sarawak Bornei, ad ligna muscosa putrescentia.

38. **Xylaria Gomphus** Fr. Nov. Symb. pag. 127, *Sph. Gomphus* Fr. Elench. Fung. II. 54. — Lignosa, clavæformis, simplex, lacunoso-rugosa, undique crustaceo-laccata, opaca atra, stipite lævi glabro. 1187

Hab. ad basim truncorum in Brasilia (Lund). — Maxima inter species hactenus descriptas (majores in Java a Blumeo lectas accepimus), 3–6 unc. alta, $^1/_2$ unc. et ultra crassa, sursum sensim incrassata, statura *Clavariæ pistillaris b. herculeancæ*, sed *Sph. Ghomphi* clava difformis, superficie, *Morchellæ instar!*, cujus speciem primo obtutu habui (sic mire ludit in maxime affinibus stro-

matis figura, dum receptaculi in Elvellaceis constans est!), lacunoso-reticulata plicataque, lacunis oblongis, undique peritheciis cincta; stipes clavula multoties brevior est, inæqualis, sed omnino lævis deorsum attenuatus, vix radicatus; superficies omnis crusta laccata, glaberrima, opaca, piceo-atra; intus longitudiraliter cava est; ceterum substantia suberosa, dura, crassiuscula, alba, contextu obscurius floccoso; perithecia periphærica, *rare sparsa*, globosa, primo pallentia; ostiola latentia, tantum sub lente conspicienda, punctorum instar prominula (Fl. l. c.).

39. **Xylaria gracilis** Kl. in Hook. Herb. Berk. A. N. H. X. p. 398. 1188
Sph. digitata Hook. — Coriacea; stipite glabro, furcata, fastigiata, angusta, acuta, apice sterili; intermedia inter *X. digitatam* et *X. multiplicem* Kl.

Hab. in Andibus (Humboldt). — Perithecia quandoque infra bifurcationem extensa. Stroma 36-40 mill. altum, 2-3 mill. cr.

40. **Xylaria grammica** Mont. Syll. Crypt. n. 680 et Cent. II, n. 23, 1189
t. 9, f. 1. — Magna, suberosa, clavæformis, crustaceo-laccata, rigida, fragilis, fuliginoso-atra, glabra; clavula elongata cum stipite confluente, apice acuminato obtuso sterili, lineolis (sulcis planis) longitudinalibus flexuosis anostomosantibus vix impressis percursa, intus cava; peritheciis carbonaceis, tenuibus, determinate seriatis, ostiolis in medio sulcorum papillatis; ascis sporidiisque generis.

Hab. Ad truncos putridos in Guyana centrali (Leprieur), Cuba, S. Domingo, Brasilia.

41 **Xylaria Kegeliana** (Lév.) Fr. Nov, Symb. p. 125, *Sph.* (Cordyceps) 1190
Kegeliana Lév. Ann. Scienc. nat. 5, 1846, p. 256. — Receptaculis stipitatis cylindricis apice abrupte acuminatis, crusta pallide fulva obtectis, ab ostiolis minutis sparsis prominulis nigro-punctatis, stipitibus nudis brevibus nigris; ascis linearibus, stipitatis; sporidiis oblongis, navicularibus, fuligineis.

Hab. in Guyana Batava ad truncos (Kegel). — Affinis *X. escharoideæ* Berk. Stipes 1-3 cent. long.

42. **Xylaria obovata** Berk. Cub. F. n. 785. *Sph.* (Cord.) *obovata* Berk. 1191
Exot. Fungi Hook. — Stromate brevi stipitato, sursum sensim breviterque clavato, intus cavo, indumento subpapyraceo vestito, cortice nigro; peritheciis majusculis, sparsis, ostiolis exiguis; ascis cylindraceis; sporidiis octonis coffeiformibus.

Hab. in ligno putri in S. Vincentii ins. (Rev. Guilding), Guiana, Venezuela, Cuba. — Affinis *X. papyraceæ* sed dimensione et forma diversa. Stroma 30 mill. alt., 12 mill. cr. fragile, intus

fulvescens. — *Sph. obovata* Berk. A. N. H. III. p. 397, seu *Hyp. obovatum* Mont. sec. Berk. ex Brasilia, eadem species videtur.

43. **Xylaria Poiteani** (Lév.) Fr. Nov. Symb. p. 125. *Sphæria* (Cordyceps) *Poitei* Lév. Ann. sc. nat. 3, 1845, p. 40. — Suberosa, claviformis, simplex, obtusa, nigro-violacea cum stipite brevi crasso nudo confluente, ostiolis prominulis nitidis; peritheciis magnis rugosis ostiolis prominulis, nigro-lucidis; ascis linearibus paraphysatis, sporidiis 8 oblongo-ovalibus, utrinque acutiusculis, opacis. 1192

Hab. in Hispaniola ad truncos (Poiteau), in insula S. Crucis Antillarum (Benzon).

44. **Xylaria Lingua** (Lév.) Fr. Nov. Symb. p. p. 126. *Sphæria* (Cordyceps) *Lingua.* Lév, Ann. scienc. nat. 3, 1845, p. 41. — Suberosa, simplex compressa, linguæformis, atra cum stipite brevissimo nudo confluente; peritheciis hemisphæricis prominulis pertusis. 1193

Hab. Java, ad truncos. — Stromata 4-7 cent. longa, 12-15 mill. cr., extus nigra, intus alba.

45. **Xylaria obtusissima** (Berk.) Sacc. *Hypoxylon obtusissimum* Berk. Fungi St. Domingo, p. 11. — Capitulo brevi, late elliptico-clavato, obtusissimo, stipite brevissimo, cuticula fragili tenui, ostiolis minutissimis. 1194

Hab. in insula St. Domingo (Sallé).

46. **Xylaria plebeja** Ces. Myc. Born. p. 16. — Plus minus cæspitosa, curta, pollicem et semis alta, clavulis compressis rudibus, lacunoso-rugosis, nunc simplicibus, nunc digitatis, peritheciis stipatis, ostiolo obtuso prominente. 1195

Hab. ad Sarawak Bornei. — Fructificatio ob ætatem nimis provectam ignota. Haud dissimilis a *X. digitata* pro qua primitus eam habui; nunc, monente cl. Berkeleyo, distinguo. Media intercedit dictæ speciei et *X. polymorphæ* (Ces. l. c.).

47. **Xylaria pyramidata** B. et Br. F. of Ceyl. n. 1036. — Stipite elongato, deorsum attenuato; capitulo hemisphærico sublentiformi, subtus striato; peritheciis pyramidato-prominentibus; sporidiis 5 μ. longis, obliquis. 1196

Hab. in ligno putri, Kandy, Ceylon. — Stipes, 35 mill. alt., 1 mill. cr.; capitulum 5-6 mill. cr.

48. **Xylaria ectogramma** Berck. Austr. Fungi n. 231. — Clavula oblongo-lineari, obtusa, laccata, dealbata, hic illic rimosa; ostiolis determinato-seriatis; stipite fusco brevi vel elongato, subinde partim fertili. 1197

Hab. Victoria Australiæ. — A *V. aciculari* differt ob ostiola

seriata a *X. grammica* quia rumpendo non collabascit. Stroma simplex v. furcatum, intus album, extus griseum, 5 cent. alt.

49. **Xylaria retipes** (Lév.) Fr. Symb. p. 126, *Sphæria* (Cordyceps) *retipes* Lév. Ann. scienc. nat. 5, 1846, p. 257. — Stromatibus cæspitosis elongatis cylindricis, pruina alba pulverulentis, demum denudatis, nigris; peritheciis globosis, immersis, ostiolis minutis papillatis, stipitibus nigris nudis alveolato-rugosis. 1198

Hab. in Java ad truncos (Zollinger).

50. **Xylaria rhizocola** Mont. Syll. Crypt. n. 684 et Cent. II, n. 28, t. 9. f. 3. — Elata, gracilis; stipite elongato lævi, e radicibus plantæ cujusdam enato, extus opaco, intus solido pallido; clavula pro ratione brevi lanceolata, apice fertili; peritheciis perphericis confertis minutis atris prominulis rugoso-colliculosa, ostiolis punctiformibus atris; ascis sporidiisque generis. 1199

Hab. in sylvis Guyanæ centralis (Leprieur), in radice herbarum, Sarawak, Borneo (Beccari). — Habitus sec. Ces. a *X. Guepini* non dissimilis.

51. **Xylaria rhytidophlœa** Mont. Syll. Crypt. n. 687 et Guy., mss., n. 480. — Simplex; stromate indurato corneo tereti-compresso obtuso vel corniformi, atro, opaco, intus fuliginoso stipiteque brevissimo, tenuissime rugoso-reticulatis; peritheciis perphericis, globosis immersis atro-farctis, ostiolis prominulis; ascis generis; sporidiis minimis, oblongo-ovoideis, fuscis. 1200

Hab. ad ligna denudata, Cayenna (Leprieur), Melbourne, Australia (Müller).

52. **Xylaria ruginosa** Mont. Syll. Crypt. n. 689 et Guy., mss., n. 485. — Elata, dichotoma, compressa, scruposa, atro-fusca, opaca; clavulis terminalibus, ellipticis, glabris, profunde rugoso-rimosis, intus corneis rigidis; peritheciis majoribus perphericis immersis, ostiolis minutis (ad lentem) prominulis; ascis sporidiisque generis. 1201

Hab. in Guyana (Leprieur).

53. **Xylaria scotica** Cooke Grev. IV, p. 112. — Suberosa; stromate longissimo, pallido, rhizoide, tenui, sursum 1-3-dichotomo-ramoso, ramis elongatis, v. brevissimis fasciculatisque; capitulis elongatis, subcylindricis, apice plus minus attenuatis, griseo-brunneis, dein nigris; peritheciis copiosis, subpapillatis; ascis cylindricis; sporidiis monostichis, ellipsoideis, brunneis, minutis, 5-6 ≈ 3. 1202

Hab. ad terram Meihlouer, Scotia (Matheson). — Tota 5-15 cent. longa; clavulæ 2-3 cent longæ. Minutie sporidiorum mox dignoscenda species.

54. **Xylaria stilboidea** Kalch. et Cooke. Grev. 1880, p. 28, tab. 137, 1203
fig. 26. — Parva, stipitata; capitulo subgloboso, atro (1–2 μ. diam.) ostiolis exertis asperatum; stipite cylindrico, fusco (1–1½ mill. long.) gracili; stromate albo; peritheciis atris, immersis; ascis cylindricis; sporidiis uniseriatis, ellipticis, atro-fuscis 14–15 ≃ 5.

Hab. in ligno putri in Africa australi. — Minuta stirps, habitu *Stilbi* cujusdam æmula.

55. **Xylaria Telfairii** (Berk.) Sacc. *Sphæria* (Cord.) *Telfairii* Berk. 1204
Exot. Fungi Hook. p. 397. — Coriacea, clavata, apice obtusiuscula solida, cortice fragili cervino obducta, ostiolis peritheciorum punctulata; peritheciis majusculis subglobosis; ascis cylindraceis, octosporis; sporidiis coffeiformibus, sæpe 1-guttulatis.

Hab. in insul. Mauritia (Telfair). — Adest in h. Klotzsch sub nomine *S. involutæ*. — Stroma 50 mill. alt., 12 mill. cr. — Sec. Curr. Comp. Sphær. n. 7. fig. 8 (*S. involuta* Kl.) fungus siccando finditur et cortex cum peritheciis secedit; sporidia monosticha elliptico-reniformia, 16–18 μ. longa, fuliginea.

56. **Xylaria tentaculata** B. et Br. (ex Rav.) Cuban F. n. 796, North 1205
Amer. Fungi n. 826. — Stipite elongato, tenui, glabro fusco; capitulo brevi cylindrico, ostiolis adscendentibus asperato, apice processibus longis tentaculiformibus coronato.

Hab. in lignis muscosis putridis in Cuba, Ceylon, Carolina inf., Cordova. — Stroma 2 cent. alt., 2 mill. cr., capitulum 2–4 mill. longum; ostiola prominula; tentacula 12–12 mill. longa. Affinis *X. comosæ* Mont. Sporidia non descripta. Conidia elliptica 5 μ. longa.

57. **Xylaria Thyrsus** (Berk.) Sacc. *Sphæria Thyrsus* Berk. Notic. fun- 1206
gi Herb. British Museum. p. 384 (1843). *Clathrus acuminatus* Roxb. — Suberosa, simplex, clavula obovata acuminata pallida; peritheciis sursum spectantibus magnis, ostiolis subelongatis obtusis nigris; stipite elongato cylindrico deorsum longissime radicato; ascis linearibus obtusis, 8-sporis; sporidiis subcymbiformibus, fuligineis, utrinque hyalino-mucosis.

Hab. in horto botanico, Calcutta, Ind. Or.

58. **Xylaria Titan** B. et C. North Am. Fungi n. 823. — Gigantea, 1207
allantoidea, dura, extus albida; ostiolis nigris prominentibus.

Hab. in truncis in Texas Amer. bor. — Alta 12 cent., 5 cent. crassa, botuliformis, hinc convexa, hic concava, solida, alba, sporidiis fœdata, ostiolis prominulis punctulata.

59. **Xylaria tortuosa** Sow. MS. in Herb. Kew., Cooke in Grev. VIII, 1208
p. 10. — Suberoso-fragilis, repetito-ramosa, angusta et rhizomo-

phoidea, nigra, 10 cent. alta, hinc inde ramulos clavatos obtusos fertiles exerens; peritheciis prominulis, aggregatis; ascis cylindricis; sporidiis monostichis, anguste fusoideis, utrinque obtusis, leniter curvis, fuligineis, 20–22 ≃ 4.

Hab. ad terram in Mead Place Britanniæ (Sowerby). — Habitus *X. Guepini* var. *eupiliacæ* Ces., sed sporidia multo ampliora, v. *X. rhizomorphæ* Mont. sed huic sunt sporidia minutissima.

60. **Xylaria zelandica** Cooke N. Zeal. Fungi, in Grevillea VIII, p. 66. 1209
— Simplex, gracilis, stipitata, atra; capitulis cylindricis, rugosis, supra obtusis; ostiolis minutis, nervisequis; stipite glabro, canaliculato, convoluto; ascis cylindraceis; sporidiis late fusiformibus, uninucleatis, atro-brunneis, 32–35 ≃ 10.

Hab. in ligno putri Wellington, N. Zelandiæ (Travers). — Stipes 25–35 mill. alt.; capitulum 18–20 mill. longum. — *X. zeylanica* Berk. aliena est. Cfr.

61. **Xylaria zeylanica** Berk. Fungi of Ceyl. n. 1039. *Sphæria* (Cordyceps) *zeylanica* Berk. Dec. n. 189. — Suberosa; clavulis lanceolatis, compressis, levibus, atro-laccatis, cum stipitibus rugosis, brevibus confluentibus; ostiolis minutissimis; sporidiis ellipticis, minutis, 1210

Hab. in ligno putri, Ambagamoa in insula Ceylon (Gardner). — 3–4 cent. alta, ostiolis granulat nigra, pruinâ ferrugineâ conspersa.

62. **Xylaria microceras** (Mont.) Berk. Cub. Fungi n. 803. *Hypoxylon microceras* Mont. Ann. Sc. nat. 1840, XIII, p. 348, t. 9, fig. 4. Curr. Comp. Sph. n. 17, fig. 18. — Pumila, simplex, raro furcata; stipite vix ullo; clavula incurviuscula, corniformi, extus velo albo, persistente obducta, intus cinerea, subpulveracea; peritheciis peripheriçis atris, immersis, ostiolo nigro prominulo; ascis cylindraceis breve stipitatis, octosporis; sporidiis irregulariter ellipsoideis, 10 μ. longis, fuscis. 1211

Hab. in ligno putri, Cuba, Guiana, Java. — Minuta, 15 mill. alta, 1 mill. cr.. albo-velata, ostiolis nigro punctata.

63. **Xylaria Wrightii** B. et C. Cuban Fungi n. 787. — Stipite cylindrico, rimoso, exiccatione rugoso, coffeato e basi spongiosa oriundo; capite subelliptico obtusissimo pallide rufo, deorsum præcipue lituris oblongis brunneis notato, ostiolis prominulis; sporidiis cymbiformibus, 22–24 μ. longis. 1212

Hab. in ligno putri, Cuba. — Stipes 25 mill. alt.; capitulum 25 mill. altum, 10 mill. cr.

64. **Xylaria Cudonia** B. et C. North Am. Fungi n. 824. — Sublaccata; stipite curto sursum dilatato; capitulo hemisphærico e perithe- 1213
ciis papillato; ostiolis minimis.

Hab. in truncis putridis Carolinæ inf. Santee Canal. — Stipes 12 mill. altus, 4 mill. cr.; capitulum 12 mill. diam.

65. **Xylaria enterogena** Mont. Syll. Crypt. n. 683 et Cent. II, n. 25. 1214
— Stroma clavatum, intus solidum, pallidum, extus velo argillaceo polito plane obductum, stipitatum, stipite brevi compresso sulcato; peritheciis (anormaliter) dimorphis, aliis normalibus periphericis minoribus et minimis ostiolo subtilissimo instructis, aliis endogenis maximis crassis carbonaceis astomis, nucleo libero ceraceo; sporidiis ovato-globosis, hyalinis, 30 ≃ 10, intermixtis aliis normalibus generis.

Hab. in sylvis Sinnamariensibus ad truncos putridos (Leprieur).

66. **Xylaria ænea** Mont. Syll. Crypt. n. 685 et Guy., mss., n. 477. — 1215
Stromate suberoso clavato obtuso plicato-rugoso tandem æneo glabro, ex ostiolis prominulis crassis exasperato, intus pallido, in stipitem brevissimum basi convexa dilatatum confluente; peritheciis periphericis minutis immerso-latentibus; sporidiis maximis.

Hab. in ligno emortuo, Cayenna (Leprieur).

67. **Xylaria Acicula** Ces. Myc. Born. p. 15. — Sparsa in petiolis fo- 1216
liisque coriaceis exsiccatis, stipite capillari 1-3 centimetra alto, glabro, abrupte abeunte in clavulam globosam, vel obovatam vix millimetrum et semis diametro metientem, asperitatibus obsitam, atram. Fructificatio ignota.

Hab. ad Sarawak Bornei (Beccari).

68. **Xylaria exalbata** B. et Br. Fungi of Ceyl. n. 1043. Ces. Myc. 1217
Born. p. 16. — Stipite cylindrico nitido; capitulo clavato niveo ostiolis nigris punctato, demum nudo nitido.

Hab. in ligno putri Central province, Ceylon. — Alta 50 mill., 6 mill. cr.; stipes clavulam subæquans. Iunior tota albido-pruinosa, clavulis intus cavis, sæpius sulco mediano in longitudinem bipartitis.

69. **Xylaria columnifera** Mont. Syll. Crypt. n. 686 et Guy., mss., n. 1218
481. — Stromate columella filiformi suberosa pallida persistente percurso; clavula cylindracea compressa rugosa cortice rigido fragili vestita, intus cava, extus fulvo-velata, tandem glabra cinereo-nigrescente stipiteque longissimo atro-carbonaceis, fragilissimis; peritheciis membranaceis.

Hab. ad ligna prope Cayennam (Leprieur).

70. **Xylaria anisopleura** Mont. Syll. Crypt. n. 688. Cent. II., n. 32. 1219
— Solitaria, lignosa, durissima; clavula cum stipite obliquo obconicis leprosis opacis intus pallidis solidis; peritheciis in parte suprema subhemisphærica tuberculosa submarginata obviis, globosis, parum prominulis, monostichis, ostiolis discoideis, centro papillatis; sporidiis generis.

Hab. ad ligna emortua in sylvis Guyanæ (Leprieur), Peradeniya (Berk.) — Conidia globosa, 5 μ. diam.; sporidia 30 μ. longa (Berk.).

71. **Xylaria Clavulus** B. et C. North Am. Fungi n. 825. — Parva, 1220
seriata; stipite brevi crassiusculo penetrante; capitulo convexo.

Hab. in culmo putrescente graminum Texas Amer. borealis. — Stroma integrum circ. 2-3 mill. alt. non laccatum. Species minuta, pulchella, solidiuscula.

72. **Xylaria complanata** Ces. Myc. Born. p. 16. — Tres pollices alta, 1221
ad basim interdum ramosa, brunnescenti-nigra, glabra, stipite brevissimo; clavulis utrique attenuatis, complanatis, tortis; peritheciis stipatissimis ostiolo obtuso prominentibus (Specimina nimis evoluta, evacuata).

Hab. ad Sarawak, Borneo (Beccari).

73. **Xylaria Schweinitzii** Berk. et Curt. Exot. fungi Schw. p. 284. 1222
Sphœria capitata Schw. MS. — Capitulo elliptico, obtuso, suberoso, compacto, stipite elongato discreto laccato lævissimo, parce rimuloso; peritheciis globosis; ostiolis sparsis vix prominulis; sporidiis cymbiformibus, 30 μ. longis.

Hab. in ligno putri in Surinam et Ceylon. — Specimina zeylanica brevius stipitata quam surinamensia. *Xyl. polymorphæ* subaffinis.

74. **Xylaria dealbata** Berk. et Curt. Exot. fungi Schw. p. 284. Berk. 1223
Dec. N. 616. — Capitulo elliptico in stipitem cylindricum deorsum attenuato, toto crusta fragili dealbata tecto; sporidiis magnis 30 μ. longis.

Hab. in truncis putridis in Surinam et in Brasilia. — Capitulum 18-20 mill. alt., 12 cr.

75. **Xylaria cerebrina** (Fée) Sacc. *Sph. cerebrina* Fée Not. sur trois 1224
esp. nouv. de Sphæria exot. p. 2. — Aggregata, fusco-nigra; stipitibus basi connatis; clavulis apice dilatato-congestis, confluentibusque; exterioribus simplicibus, rotundato-depressis; interioribus abbreviatis, deformibus, angulosis, complanatisve; peritheciis in tota superficie conspersis, papillatis; papilla crassa, nitida, poro pertusa.

Hab. in Brasilia, Rio Janeiro, ad truncos emortuos.

76. **Xylaria tuberiformis** Berk. Fl. Nov. Zel. II, pag. 204, tab. CV, fig. 11. — Suberosa, subglobosa, pileiformis; stipite brevissimo, vel obsoleto; ostiolis latiusculis prominentibus; sporidiis magnis, navicularibus, 25 μ. longis. 1225

Hab. in ligno putri secus Manavatu, Nov. Zeland. (Colenso). Bay ob Islands, Winton (Cooke). — Stroma 6-8 mill. cr., rugulosum nec laccatum, fuscum intus album; perithecia ellipsoidea.

77. **Xylaria gigantea** (Zipp. et Lév.) Fr. Nov. Symb. p. 127. *Sphæria* (Cordyceps) *gigantea* Zipp. et Lév. Ann. Scienc. nat. 3, 1845, p. 41. — Suberosa, simplex clavæformis, compressa vel subcylindrica obtusa, rugoso-undulata, crustaceo-laccata, lurida cum stipite brevi nudo confluente; peritheciis immersis, ostiolis prominulis distantibus punctiformibus, atris nitidis; ascis paraphysatis, octosporis; sporidiis ovoideis, continuis, opacis. 1126

Hab. in Java et Borneo, ad truncos (Zipp., Beccari). — Clavulæ ultra tres pollices longæ, dimidium crassæ, quandoque, dum compressæ fiunt, usque ad pollicem latæ, in stipitem brevissimum attenuatæ, cæterum cylindraceæ, vel linguæformes, vel clavatæ, semper obtusæ, fulvæ, ostiolis obscurioribus punctatæ; senio nigrefactæ longitudinaliter lacerantur et cavas se præbent. Stroma albidum (Ces. Myc. Born. p. 16).

78. **Xylaria euglossa** Fr. Nov. Symb. 124. — Stromate clavato, nudo, sursum incrassato, obtuso lævi, argillaceo ex ostiolis subtilissimis, nigro-punctato, intus centro albido-cinereo, in ambitu nigricante, peritheciis totis immersis subglobosis atris; stipite tenui elongato glabro nigricante; ascis linearibus; sporidiis oblongis, fuscis. 1227

Hab. in Costa Rica, prope Antillas (Œrsted). — Fungus 3 unc. et ultra altus, habitu fere *Geoglossi difformis*.

79. **Xylaria tabacina** (Kickx) Berk. Decad. n. 482*, *Hypoxylon tabacinum* Kickx Bull. Acad. Bruxell. VIII, p. 11 (1841). — Affinis *X. euglossæ* Fr., sed ochracea luteo-fuscescens, intus alba, robusta, concava, mucoso-obvoluta; sporidiis $10 \simeq 5$. 1228

Hab. in ligno putri Kala Panee, Indiæ orient., Peradenya Ceylon, Sikhim, Khasia, Xelapa, Surinam, Cuba.

80. **Xylaria aurantiaca** B. et C. Cuban Fungi n. 806. — Subglobosa, inflata, aurantiaca, polita, subtus pallidior, ostiolis impressis. 1229

Hab. ad terram in sylvis Cubæ. — Immatura, sed certe gregi *X. compunctæ* pertinens.

81. **Xylaria splendens** B. et C. Cuban Fungi n. 807. — Globosa, coc- 1230
cinea, exsiccatione rugosa, stipite brevissimo.

Hab. ad terram in Cuba. — Capitulum 25 mill. diam. vel amplius. *Xyl. aurantiaca.* proxime cognata, ceterum immatura.

82. **Xylaria compuncta** (Junghuhn) Berk. Decad. 482*, *Sphæria com-* 1231
puncta Jungh. Præm. Jav. p. 21, *Hypoxylon compunctum* Fr. Symb. p, 130. — Globoso-difformis, basi constricta, glabra, alutaceo-pallida, nigro-punctata, intus pallida radiatim fibrosa; peritheciis maximis concentricis, globoso-ovoideis; sporidiis ovoideo-oblongis, 12–14 ≃ 7–8, fuscis,

Hab. in trunco prostrato mont. Burang-rang Javæ, nec non in Ceylon et Khasia Indiæ orient. — Subglobosa eximia, magnitudine pomi majoris. Differt substantia molliori a gen. *Xylaria*, ceterum *Xylariæ tabacinæ* subaffinis (Berk.). Secundum Friesium vero potius *Hypoxylo* adscribenda.

83. **Xylaria Puiggarii** Speg. Fungi Argent. IV, Pug. p. 139. — Stro- 1232
matibus majusculis, 10–30 mill. diam., 10 mill. alt., compactissimis, superne subæqualiter hemisphærico-applanatis, suborbicularibus, v. confluenti-difformibus, inferne irregulariter subconicis; contextu atro, glaberrimo, levi, opaco, fragili, carbonaceo-corticato, intus primo albo-farcto, dein fusco et laxe medulloso, postremo sæpius cavo; basi tuberculato-difformi, ligno v. cortice innato-prominula; ramis plus minus elongatis, subrepenti-exsurgentibus, crebre ramulosis; ramulis gracilibus, densissimis, brevibus, strigoso-intricatis, teretibus v. mutue compressis, apice abrupte subgloboso-capitatis; clavulis solitariis in quoque ramulo, dense aggregatis, obovato-subglobosis, e mutua pressione obtuse angulatis, 2–3 mill. diam., sursum truncato-applanatis, margine late obtuso, parce et laxissime papilloso-asperulis, sæpe centrum versus anulatim depressis, centro tamen umbonato-prominulo, levissimo; peritheciis omnibus verticalibus (!!), marginem clavulæ occupantibus, ellipticis, v. ovoideis, atro-carbonaceis, fragilibus, paucis, 10–12 in quaque clavula, majusculis, 0,7–1 mill. alt., 0,5–0,7 mill. lat., apice in ostiolum parvulum vix exertum papilliforme abeuntibus; ascis cylindraceis, apice obtuse ac crasse tunicatis, deorsum longe stipitatis, 80–100 ≃ 9–10 p. sporif., 40–50 ≃ 5–8 stip., tetrasporis, paraphysibus mucosis obvallatis; sporidiis recte monostichis, elongato-cymbiformibus, utrinque obtusiuscule rotundatis, centro tumidulis, e latere compressis, 28–30 ≃ 5–6 e latere, 3–4 μ. crass., non v. minute 2-guttulatis, opace fuligineis.

Hab. ad cortices truncorum putrescentium, Apiahy, Brasilia meridionali, leg. cl. Dr. J. Puiggari. — Species mox distinguenda clavularum forma atque constipatione, notis fructificationis peritheciisque autem omnibus verticalibus facile ad novam sectionem ducenda; *Hyp. cetrarioidi* Curr. et W. facile, ut videtur, affinis. — An ergo potius e sect. *Cœnopodis Hypoxyli?*

84. **Xylaria contracta** Speg. Fungi Arg. Pug. IV, n. 139*. Affinis *X.* 1233
Puiggarii; ramis et ramulis brevioribus crassioribusque (tota planta vix 5-10 mill. alt.), densius evolutis, sæpius fasciculatis, mox in clavulas productis; clavulis in quoque ramulo binis, teretisubcompressis, gibbuloso-undulatis, papilloso-asperulis, sursum non v. vix attenuato-acutatis, sæpius truncatis v. crasse obtusatis, minoribus, 3-5 mill. long., 1,5-2 mill. crass., quandoque vix basi parce confluentibus, bene evolutis ac divergentibus, quandoque (sæpius) una abortiva, minuta tuberculato-difformi, altera autem perfecte evoluta. Cetera ut in *X. Puiggarii.*

Hab. in ollis plantarnm cultarum hinc inde per Bonariam, Argent., nec non ad palos vetustos in montosis «Sierra del Tandil» (Dr. E. L. Holmberg).

85. **Xylaria rhopaloides** (Kunze) Mont. Ann. Sc. nat. 1855, III, 99, 1234
Sphæria (Hypoxylon) *rhopaloides* Kunze Exs. Mont. Ann. Sc. nat. 1840, XIII, Cent. II, n. 27.

Hab. in lignis putridis, Guiana, Amagon, Mexico, Natal, Cuba, Ceylon, Brasilia. — Asci cylindracei breve stipitati, octospori. Sporidia 8-10 μ. longa. Speciei diagnosim loc. cit. non inveni.

B) Basipeltis: basi stipitis peltato-dilatata.

86. **Xylaria platypoda** (Lév.) Fr. Nov. Symb. 127, *Sph.* (Cordyceps) 1235
platypoda Lév. Ann. Scienc. nat. 3, 1845, p. 40. — Gregaria, clavula simplici, ovata, crassa, undulata, obtusa, crustaceo-alba, peritheciis globosis prominulis, ostiolis papillatis, stipite brevi, nigro, lævi basi scutato-dilatato; ascis cylindraceis, paraphysatis; sporidiis ellipsoideis utrinque acutis, fuligineis, monostichis.

Hab. Pic de Tolima, Cuchilla de la Divisadera (Just. Goudot). Stroma 2-3 cent. altum.

87. **Xylaria hyperythra** Mont. Syll. Crypt. n. 681 et Cent. II, n. 26. 1236
— Simplex, suberosa; clavula lanceolata stipitata, stipite glabro basi scutulata affixo, intus pallida, extus atro-corticata veloque subpulverulento rubiginoso persistente obducta, rugosa; peritheciis peri-

phericis immersis carbonaceis atris, ostiolis papillatis, prominulis; sporidiis generis.

Hab. in sylvis Sinnamariensibus ad truncos putridos (Leprieur); nec non in Guiana, Cuba, Brasilia.

88. **Xylaria pallida** B. et Cooke Fungi of Braz. n. 394. — Suberosa, 1237
claviformis, simplex, pallida; clavula cylindracea, apice subacuminato; stipite gracili, ad basim discoideo; sporidiis cymbiformibus, fuscis, 15 ≃ 5.

Hab. in lignis, Papunha Brasiliæ (Traill). — Tota 25–40 mill. alta, stipes 15–20 mill. longus. Ostiola punctiformia minuta nigra.

89. **Xylaria clavulata** (Schw.) B. et C. Cuban Fungi n. 701, *Sph.* 1238
(Cordyceps) *clavulata* Schw. Synops. Amer. bor. n. 1155. — Subiculo clypeato, ovato, regulari, contextu fibrilloso-membranaceo arcte epidermide insidenti, centro incrassato-elevato, marginibus subliberis inflexis, ad quartam partem unciæ expanso; clavulis ex subiculo patellari, basilari, assurgentibus rigidulis, subdivergentibus, ad 7–10; tres lineas altis, substantia suberosa, intus albis, extus nigris, et apice obtuso cinereo-pulveraceis; stipite attenuato, et in capitulum oblongum obtusum sensim abeunte, capitulo a stipite denique distincto; peritheciis parallelis nigris prominulis cum ostiolis minutis, et demum dejicentibus corticem exteriorem cinereo-pulverulentum; intus albis farctis.

Hab. in ramulis vivis Quercus palustris et coccineæ, onustis operibus Cynipum, Bethlehem, Amer. bor., Venezuela, Cuba.

Sect. 2. *Xylocoryne* Fr. l. c.: clava undique fertili, stipite vestito.

90. **Xylaria corniformis** Fr. Summ. Veg. Scand. p. 381, Nits. Pyr. 1239
Germ. p. 13, *Sph. corniformis* Fr. El. II, 57. — Stromate omnino simplici nec furcato nec ramoso, cylindrico, nunquam compresso v. dilatato, crassiusculo, fragili, ex fusco nigricante, apice nonnihil angustato, obtusiusculo plus minus incurvo, corniformi, basi incrassata, subhemisphærica v. conica, villosa substrato adfixa, peritheciis undique obsito; stromatibus congregatis quidem sed liberis nec inter se conjunctis paginæ inferiori ligni, humi prostrati, sæpe adpressis, horizontalibus; peritheciis subglobosis, confertissimis, minutis, plus minus protuberantibus, ostiolis papillæformibus, minimis; ascis cylindricis, longissime pedicellatis, octosporis, 60–75 ≃ 6–7 p. sporif.; sporidiis oblique monostichis, nonnihil inæquilateralibus v. subrectis, utrinque rotundatis, obtusissimis, fuscis, 8–10 ≃ 5.

Hab. in truncis prostratis Fagi, Populi, Aceris etc. in Britannia, Germania, Italia, Smolandia, Amer. bor., Ceylon, Nova Zelandia. — Var. *obovata,* New York. — Var. *irregularis,* stromate irregulari et compressiori. Amer. bor. — *X. furcata* (Schw.) Berk. et Curt. Exot. Schw. Fungi p. 284 (nec Fr.), seu *Hypoxylon corniforme* Mont. (ex Guiana) differret a *X. corniformi* Fr. sporidiis angustioribus; sed sec. Currey (Linn. Trans. XXII, tab. 45, fig. 20–21) vix varietas.

91. **Xylaria longipes** Nits. Pyr. Germ. p. 14, *X. polymorpha* Auct. p. p. — Stromatibus erectis v. assurgentibus varieque curvatis, stipitatis in ramis crassis putrescentibus ac plerumque decorticatis prostratisque sparsim v. multo rarius 2–3 basi tantum conjunctis, clavula perithecigera in plerisque omnino simplici, tereti exacte cylindrica, crassa, apice obtusissima, rotundata, rarius ventricoso-inflata, oblonga, rarissime compressa, integra v. bipartita, superficie reticulato-rimosa, ex argillaceo nigricante peritheciorumque ostiolis exiguis, hemisphæricis, extantibus nigropunctulata, in stipitem longitudine nunc breviorem nunc contra subæqualem, immo longiorem sed semper multo tenuiorem sensim attenuata; stipite basi tuberoso-incrassato, pilis crassiusculis, patentibus v. contextis atque adpressis, rubescentibus dense hirsuto, superne glabro, plicato-rugoso, ex argillaceo fuscescente; hymenio conidifero cinereo-albido, mox disparente; conidiis obovatis, exiguis, 8 ≃ 4–5, in sterigmatibus brevissimis, septatis solitarie acrogenis; peritheciis clavulæ omnino immersis nec protuberantibus, minutis, globosis vel compressis, dense ac monostiche stipatis; ascis cylindricis, longissime pedicellatis, octosporis, 80–100 ≃ 7–8 p. sporif.; sporidiis oblique monostichis, ovatis, inæquilateralibus, nigricantibus, 11–14 ≃ 5–6. 1240

Hab. in basi putrida truncorum Fagi, Aceris, etc. in Westphalia et Rhenogovia Germaniæ.

92. **Xylaria aphrodisiaca** Welw. et Curr. Fungi Angol. p. 280, t. 18, fig. 3–4. — Cæspitosa, glabra, clavulis, subcylindricis, 1–2 unc. altis, fusco-cinereis, tota superficie inordinate areolatis; medulla centrali albissima; peritheciis.....?; basi communi tomento fusco delicato vestita. 1241

Hab. rarior in sylvis primitivis densis ad truncos diu putrefactos, juxta rivum Delamboa, distr. Golungo alto, Angola (ubi fungus uti aphrodisiacus habitus est). — Ex icone clavula tota est perithecigera.

93. **Xylaria fastigiata** Fr. Nov. Symb. 127. — Dense cæspitoso-connata, fistulosa, atra, stipitibus elongatis compresso-inæqualibus e leproso glabratis, clavulis contiguis brevibus, oblongis, cylindricisve obtusis, papilloso-scabris, peritheciis immersis peripheriçis globosis, ostiolis papillæformibus; sporidiis oblongis, curvulis, opacis. 1242

Hab. ad truncos in Costa Rica, prope Antillas (Œrsted). — Clavulæ vix 2 lin. cr. Affinis *X. scruposæ* et *multiplici* Fr.

94. **Xylaria Beccariana** Pass. Funghi Abiss. p. 185. — Stromate compresso, spathulato, apice rotundato vel truncato, peritheciis undique obsito, siccitate durissimo, in stipitem brevissimum vel elongatum villosum attenuato; ascis cylindricis, 8sporis; sporidiis oblique monostichis ovatis, lateribus parum inæqualibus, apicibus obtusis, simplicibus, fuscis, 4-5 ⩾ 2. 1243

Hab. ad Sciotel, in montibus Zelamba (Abyssinia). — A *X. polymorpha* (Pers.) differt præ ceteris sporidiis dimidio minoribus et a *X. corniformi* Fr. et *X. longipede* Nits. saltem forma et duritie lignosa stromatis. Clavulæ solitariæ vel geminatæ saltem in speciminibus visis; centim. 5 sine stipite metientes.

95. **Xylaria multiplex** (Kunze et Fr.) B. et C. Cuban Fungi n. 795, *Sph. multiplex* Kunze et Fr. in Linnæa 1830, p. 532. — Cæspitosa, suberosa, fusco-atra, clavulis tereti-compressis, subdivisis, lævibus intus albis, stipitibus elongatis leproso-villosis; peritheciis prorsus immersis, globosis, confertis, ostiolis punctiformibus, dein subdilatatis; sporidiis ovoideis, 20-22 μ. long. 1244

Hab. ad truncos, Surinami, Java, Nova Zelandia, Guiana, Juan Fernandez. — *X. Hypoxylo* affinis.

96. **Xylaria Geoglossum** (Schw.) Fr. Nov. Symb. 126, *Sph.* (Hypocrea) *Geoglossum* Schw. New Amer. Sphær. p. 4, t. I, f. 4 et in Linnæa IV, Litt. 44. — Subcarnosa, geoglossides, intus albida, extus aterrima; capitulo linguiformi, medio compresso et canaliculato, apice obtuso; peritheciis parvis confertis immerso-prominulis; stipite clavula triplo longiore, subhirsuto, intus albo, extus atro. 1245

Hab. New York, Amer. bor. — Totus fungus pollicem altus, valde gracilis.

97. **Xylaria castorea** Berk. Fl. Nov. Zel. I, p. 204. t. CV, f. 10. — Stipite brevi, primum spongioso-velutino demum nudo, rugoso; clavula obtusa ovata vel subelliptica, valde compressa minutissime areolata, ostiolis prominulis punctato-aspera; ascis angustis; sporidiis ovoideo-oblongis, fuligineis, 10 μ. longis. 1246

Hab. in ligno putri in Nova Zelandia (Colenso), Wellington

N. Z. (Travers). — Stroma 2–3 cent. alt., 12–16 mill. cr. Habitus fere *X. Linguæ* Lév.

98. **Xylaria collabens** Mont. Syll. Crypt. n. 696 et Cent. II, n. 31, t. 9, f. 6, *Acrosphæria collabens* (Mont.) Corda Anleit. p. 136. — Fragilissima, stipitata; stipite nigro-villoso, villo patenti, simplici aut furcato; clavula magna sphærica, Cerasi magnitudine, nigra, intus cava, extus subsquarrosula, appendice apicali brevi aut nullâ instructa; peritheciis peripheric is magnis membranaceis fuscis collabentibus, ostioli papillæformis prominuli limbo interno circulari adnatis; sporidiis generis at duplo majoribus. 1247

Hab. in cortice arborum in Guyana centrali (Leprieur).

99. **Xylaria adscendens** Fr. Nov. Symb. 128, *Sph. adscendens* Fr. Linnæa 1830, pag. 537. — Suberosa, simplex ramosave, clavulis compressis longitudinaliter costato-rugosis, laccatis, atris, stipitibus adscendentibus subglabris lacunoso-sulcatis; peritheciis immersis, haud prominulis globosis amplis, sparsis. 1248

Hab. in truncis demortuis prope Tifuca Brasiliæ (Beyrich). — Stirps 3–4 unc. alta, a *X. Hypoxylo* non multum absimilis.

100. **Xylaria alpina** Speg. Nov. Add. n. 64, Mich. II, 253. — Stromatibus sæpius solitariis, rarius in cæspitibus 2–3 connatis, clavæformibus rarius subcylindraceis, rarissime lateraliter compressis, 2 cent. altis, $^1/_3$–$^1/_2$ diam.; extus atris ruguloso-scabrosis, intus candidis; clavula peritheciis subglobosis, totaliter immersis, vix apice ostioli exsertis, confertissimis, undique ornata; stipite atro, brevi, ligno immerso, sæpe subbulboso, pulvinulo depresso, subcirculari, tomentoso-ozoniaceo, atro-olivaceo circumdato; ascis longissime pedicellatis, 40–45 ≃ $4^1/_2$–5 p. sporif., 100–110 ≃ 1–$1^1/_2$ stip., paraphysibus crassis torulosis obvallatis, octosporis; sporidiis oblique monostichis, navicularibus, rarius subellipticis, utrinque obtusiusculis, 1-guttulatis, fusco-fuligineis, 7–10 ≃ 4–5. 1249

Hab. in trunco carioso putrescente Abietis in sylva alpina Cansiglio, in Italia boreali.

101. **Xylaria portentosa** Mont. Syll. Crypt. n. 677 et Cent. I, n. 33, Fl. Boliv., sub *Sphæria* (1839), p. 46, et Fl. Chil., VIII, p. 420, t. 9, f. 1, *Sph. antilopea* Lév. Ann. Scienc. nat. 1846. — Lignosa; stipite basi ramoso-subfasciculato, clavulis elongato-linguiformibus atris intus cavis, undique perithecia magna superficialia ovato-globosa crassa papillata gerentibus; ascis cylindraceis longe stipitatis, paraphysatis; sporidiis cymbiformibus binucleolatis. 1250

Hab. ad lignum emortuum in Chile (Alc. d'Orbigny), Guade-

lupa (L'Herminier). — Stromata cylindracea, 6–12 cent. longa, basi 3–5 mill. cr.

102. **Xylaria radicata** B. et C. Cuban Fungi n. 780, *Sph. radicata* Schw.! herb. — Cylindrica, simplex vel e radice longa tomentosa subcæspitosa oriunda, ex atropurpureo nigra, rugosa, leviter rimosa, ostiolis prominulis papillata; stipite brevissimo; sporidiis cymbiformibus 15–20 μ. longis. 1251

Hab. in ligno putri Cubæ et Surinami. — Radix 2–5 cent. longa; capitulum fere æquilongum.

103. **Xylaria scruposa** (Fr.) Berk. Cub. Fungi n. 802, *Sph. scruposa* Fr. El. II, p. 55. — Cæspitosa, suberosa, clavulis simplicibus scruposo-rugosis undique peritheciis tectis, intus griseis, stipitibus subvillosis. 1252

Hab. ad truncos Brasiliæ, Indiæ occidentalis et Cubæ. — Species eximie distincta! Stipites plurimi conjuncti, inferne in radicem deorsum attenuatam, truncos intrantem, connati, longitudine clavulæ, leproso-villosi, lineam crassi; variant glabrescentes. Clavulæ oblongatæ, obtuse, simplicissimæ, undique peritheciis cinctæ et tuberculosæ, superficie insuper rugoso-scruposa et adspectu quasi leprosa, ut varii fungi Brasiliani, opaca, atra. Intus tota solida est, molliuscula, grisea, haud pulveracea. Perithecia globosa, conferta, passim polysticha (immatura stromati immersa), pro ratione majuscula, prominentia, atra. Ostiola ipsa superficie leprosa obliterantur. Tota 1–2 unc. alta, clavulis 2–3 lin. diametro.

104. **Xylaria comosa** Mont. Syll. Crypt. n. 696 et Cent. II, n. 30, t. 9, f. 5, *Sph. echinocephala* Schw. MS. — Simplex, stipitata; stipite coriaceo-suberoso nigro-velutino; clavula brevi elliptica etiam villosula, crusta rimosa (velo) juniore ochroleuca, demum fuscescente obducta, apice varie fimbriata, fimbriis comam fingentibus, intus initio fibris tranversis farcta, dein columella axili pallida tantum percursa; peritheciis globosis, sparsis membranaceis mollibus flaccidis collabentibus, ostiolis papillatis ad rimulas crustæ sæpius insidentibus. 1253

Hab. ad ligna emortua in sylvis Sinnamariensibus (Leprieur), Cuba, Surinam, S. Domingo (Berk.).

105. **Xylaria Cullenіæ** B. et Br. Fungi of Ceylon n. 1047. — Stipite elongato strigoso quandoque furcato; capitulo simplici vel fasciculato-partito; peritheciis prominulis rugosis; sporidiis cymbiformibus curvulis. 1254

Hab. in capsulis aculeatis Cullenïæ spinosæ, Ceylon. — Pili stipitis septati.

106. **Xylaria hispidula** B. et C. Cuban Fungi n. 804. — Stipite elongato æquali nigro floccis patentibus demum depressis vestito; capitulo subcylindrico obtuso subfulvo venis flexuosis nigris ornato; peritheciis prominulis; sporidiis cymbiformibus, 14–15 μ. longis. 1255

Hab. in ligno putri, Cuba. — Stipes 5 cent. longus; capitulum 25 mill. long. deorsum attenuatum. Affinis *X. escharoidi*, sed rite distincta.

107. **Xylaria microcephala** Mont. Syll. Crypt. n. 692 et Fl. Chil., VII, p. 432, t. 9, f. 2. — Cæspitosa, minuta, 4 mill. alta; stipitibus teretibus ramosis, fusco-tomentosis; capitulo globoso depresso millim. crasso concolori; peritheciis paucis immersis intus albis. 1256

Hab. ad cortices arborum emortuarum in Chile (Bertero).

108. **Xylaria spathulata** B. et Br. Fungi of Ceyl. n. 1040. — Capitulo late obovato castaneo ostiolis nigris punctato; stipite brevi brunneo basi penetrante materie fusca spongiosa prædito; carne pallida; sporidiis minutis 10 μ. longis. 1257

Hab. in ligno putri, Central province, Ceylon. — Stipes 20 mill. long. capitulum æquans; perithecia in stipitem decurrunt.

109. **Xylaria tenuissima** (Zipp. et Lév.) Fr. Nov. Symb. p. 128, *Sphæria* (Cordyceps) *tenuissima* Zipp. mss. Lév. Ann. Scienc. nat. 3, 1845, p. 44. — Nigra; stipite gracili elongato, scruposo-velutino deorsum attenuato, sursum bifido, claviculis torulosis elongatis mucronatis, peritheciis globosis semi-immersis, ostiolis obsoletis. 1258

Hab. in Java et Clili, ad truncos. — Stipes 3 cent. altus. Accedit ad *Xyl.* (Thamn.) *hispidissimam* Fr.

Sect. 3. *Xylodactyla* Fr. l. c.; clava apice sterili, stipite villoso.

110. **Xylaria pedunculata** (Diks.) Fr. Summ. Veg. Scand. p. 382. Nits. Pyr. Germ. p. 8 *Sph. pedunculata* Dicks. Crypt. Brit. IV. p. 27, t. XII, f. 8. — Stromate e terra emergente, crassiusculo, flexuoso, fusco-nigricante, simplici v. rarius parce ramoso; hymenio conidifero cinereo; clavula perithecigera crassa, subglobosa, peritheciis prominentibus verrucosa, apice conico, acuto, sterili; ascis cylindricis, brevi-pedicellatis, octosporis; sporidiis late ovatis, obtusissimis, rectis, oblique monostichis, ex fusco nigricantibus, opacis, strato mucoso, crasso, hyalino cinctis, 40 ≃ 20. 1259

Hab. ad terram uliginosam plerumque stercoratam in Gallia, Britannia et Missouri, Amer. bor.

111. **Xylaria Hypoxylon** (Linn.) Grev. Flora Edin. p. 355. Nits. Pyr. Germ. p. 5, *Clavaria Hypoxylon* Linn. Fl. Suec. ed II, p. 457. *Sph. Hypoxylon* Pers. Obs. myc. I, p. 20. — Stromate erecto, compresso-dilatato varieque partito, rarius tereti ac simplici, atro et basin versus villoso; hymenio conidifero albido, conidiis fusiformibus, minimis; clavula perithecigera stipite multo crassiore perithecciis ovatis, paullo prominentibus, dense stipatis rugosa, apice sterili; stipite clavula plerumque breviori; perithecciis rarius in stromate fere integro irregulariter sparsis; ascis cylindricis, octosporis, longe pedicellatis, 80 ≃ 7–8, parte sporif.; sporidiis fusiformibus obtusis, inæquilateralibus, nigricantibus, oblique monostichis, 12–14 ≃ 5–6. 1260

Hab. ad ligna putrida, cortices muscosos truncorum in tota Europa, Amer. merid. et bor., Asia merid., Cuba, Java, Australia, Natal. — Var. *Bowmanni* Müll.; gracilis, brevior, 18–24 mill. alta. In Australia, King 's Creek. — Var. *mucronata* Berk. Ceylon. — Var. *pedata*, glabra, nigra, clavula subdiscreta pedato-incisa; stipite clavulam superante. Cum vulgari. — Var. *cupressiformis* Pers. *X. cupressiformis* (Woodw.) Fr., minor, simplex, clavula discreta, cylindrica conico-acuminata. In Suecia et Germania.

112. **Xylaria cupressiformis** Becc. in Erb. crit. ital. n. 1278, *Lichenagaricus cupressiformis* Mich. N. pl. gen. 104, t. 55, fig. 2, nec Pers. — A *X. Hypoxylo* differt indumento basilari pannoso, rufobrunneo, nec hirsuto; sporidiis oblongo-navicularibus, latitudine sua fere triplo longioribus (in *X. Hypoxylo* latitudine vix duplo longiora sunt). 1261

Hab. in truncis Populi in sylva Pisana (Ital. media) ubi legit O. Beccari. — *X. cupressiformis* Ces. Myc. Born. p. 17, ex Sarawak (Borneo) huc forte quoque spectat.

113. **Xylaria Massula** Ces. Myc. Born. p. 15. — *Xylariæ cupressiformi* aliquantulum similis; clavulis gregariis, dimidium centimetrum ad summum altis, ovatis in stipitellum abrupte attenuatis, obtusis, rugosis, atris; ascis linearibus, sporidiis cymbiformibus alternatim versis, uniseriatis, utrinque obtusis, continuis, e virenti fuscidulis, sub-opacis, 8 ≃ 5. 1262

Hab. in Sarawak Bornei ad Mattang, in corticibus et ligno denudato.

114. **Xylaria aristata** Mont. Syll. Crypt. n. 694 et Guy.. mss., n. 497, t. 5, f. 6. — Simplex aut furcata, filiformis, carnoso-suberosa; clavula ex ovoideo sphærica, mucronato-aristata, umbrina, lævi; 1263

peritheciis sphæricis latentibus membranaceis, ostiolis prominulis atris; stipite patenti-villoso attenuato; ascis cylindraceo-clavatis, 80 ≃ 5, paraphysatis; sporidiis minutis cymbiformi-gibbis, 10 μ. longis.

Hab. ad folia Guttiferæ cujusdam, Cayenna (Leprieur), Borneo (Beccari), Cuba in foliis Clusiæ etc. (Berk.). — Sparsa, in foliis coriaceis insititia. Stipes simplex, e basi parum crassiori filiformis, ultra pollicem et dimidium longus, rigidus, interdum paullisper flexuosus, desinens in clavulam oblongam, 3-4 mill. longam, $^1/_2$ crassam, ostiolis exasperatam, mucronatam. Totus fungus umbrinus, glaber, levis (Ces.).

115. **Xylaria apiculata** Cooke Nev. Zeal. Fungi in Grev. VIII, 66. — 1264
Simplex, gracilis, stipitata, atra; capitulis cylindricis, superne apiculatis; peritheciis prominulis, papillatis; stipite velutino; ascis cylindraceis; sporidiis uniseriatis, lanceolatis, subcurvulis, atro-brunneis, 20-22 ≃ 7.

Hab. in ligno putri Maungaroa Novæ Zelandiæ. — Stipes 25-38 mill. altus, clavula 12 mill. long. 2 mill. cr. apice spinulosa.

116. **Xylaria Tulasnei** Nits. Pyr. Germ. p. 8, *X. pedunculata* var. 1265
pusilla Tul. Carp. II, p. 18, t. II, fig. 1-28. — Stromate e terra v. e fimo cuniculari apice clavuligero erumpente, simplici, nigricante, gracili, filiformi, flexuoso v. contorto, basi plerumque varie incrassato, sclerotiiformi, plerumque sub clavulam nec non ad basin versus pilis copiosis hirsuto, ceterum variæ longitudinis; hymenio conidifero cinereo; conidiis obovato-globosis minutissimis; clavula perithecigera subglobosa vel e basi maxime incrassata in apicem sterilem acutum sensim attenuata, peritheciis prominulis mammillosa; ascis cylindricis, breviter pedicellatis, octosporis, pseudoparaphysibus longissimis, filiformibus, tenerrimis, septatis obvallatis; sporidiis submonostichis, late ovatis, obtusissimis, rectis, nigricantibus, strato crasso, hyalino, involutis, 24 ≃ 12-14.

Hab. in humo fimo Cuniculorum stercorata in Gallia, Britannia et Germania. — A *X. pedunculata* statura multo minori differt.

117. **Xylaria stuppea** (Wallr.) Nits. Hedw. 1868, p. 83. *Sph. stup-* 1266
pea Wallr. Crypt. Germ. n. 4114. *Sph. digitata* β *rhizoides* Fr. El. II. 56. — Stromate nigro fusco, tegmine stupposo stipato-contexto, stratum medullare album ambeunte tecto, molli, e basi rhizode ramosissima implexa in stipites proliferos, inferne bulbosos, superne in apicem primum albo-pruinosum tenuatum, dein perithe-

ciis globosis, vertice acuto papillato prominentibus, nucleo nigro farctis asperum cylindricum desinente, plexus fasciculatos rhizomatoideos mentiente; ascis cylindricis, stipitatis, 160 ≃ 8, p. sporif.; sporidiis octonis, oblongis, inæquilateralibus, 20–27 ≃ 6–7, fuligineis.

Hab. ad ligna quercina aquæductuum northusanorum Germ. semel at abundanter. — Clavula 6–20 mill. longa, 2–3 mill. crassa. — A *X. digitata* et *X. polymorpha* satis recedit.

118. **Xylaria polyclada** (Lév.) Fr. Symb. myc. 128. *Sphœria* (Cordyceps) *polycladia* Pers. mss. Lév. Ann. Scienc. nat. 3, 1845, p. 44. — Carnoso-suberosa, ramosa subdichotoma, clavulis elongatis crustaceo-laccatis rugosis cylindricis opacis compressis dilatatis albis, peritheciis globosis immersis, ostiolis punctiformibus atris nitidis prominulis, stipite scruposo fuligineo; ascis densis, 8-sporis; sporidiis navicularibus, monostichis, opacis. 1267

Hab. in Hispaniola (Poiteau). — Stroma 12–15 cent. altum, stipite 6–7 cent. long.

119. **Xylaria persicaria** (Schwein). B. et C., Thuem. F. Pomic. p. 101. *Sph. persicaria* Schwein. Syn. Carol. n. 9. — Suberosa, simplex, clavula nuda albo-carnea, stipite flexuoso villoso rugoso. 1268

Hab. in defossis putaminibus Persicarum in Carolina, sat frequens. — Cæspitosa. Caulis flexuosus, raro ramosus, radicatus, 3 unc. longus et ultra, crassitie pennæ corvinæ, primo villosus virescens, demum niger (in nostris speciminibus ferrugineus), perithecia continens valde prominula, in medio sita. Clavula alba, in colorem albo-carneum v. lutescentem mutatur. In profunde defossis matricibus longitudinem acquirit 6 unc.

120. **Xylaria Guepini** (Fr.) Ces. Comm. critt. I, p. 71; t. V. *Sph. Guepini*, Fr. Elench. II, 58. — Stipite radicoso extus intusque stuppeo albo, clavulis digitatis testaceis, apice sterilibus, ostiolis granulosis atris; ascis cylindricis breve stipitatis, 8sporis; sporidiis monostichis ovoideis, inæquilateris, fuligineis. 1269

Hab. ad terram fimetosam Italiæ borealis, Galliæ occidentalis (Guepin), Brasiliæ (Fries), Ceylon et Borneo (Beccari). — Inter Sphærias recentiori seculo in Europa detectas nulla memorabilior. Stipes ad 6–7 unc. extensus, lineam crassus, erectus, æqualis, firmulus, sed mollis, undique vellere stupposo obductus, velut Rhizomorpha xylostroma Ach!, sursum dichotome divisus in clavulas plures digitato-congestas. Clavulæ 3–5-digitatæ, simplices aut bifidæ, (est enim in toto fungo dichotomiæ nisus), breves, unciam

haud attingentes, utrinque attenuatæ, mucrone sterili obtuso terminatæ; colore pallide testaceo, sed ex ostiolis nigris demum granulosis atræ; intus solidæ, stupposæ, albæ. Perithecia pro ratione ampla, atra, confertissima, immo polysticha, ostiolis prominulis conicis. Fr. l. c. — Var. *eupiliaca* Ces. l. c. in quo a specie differat nescio.

121. **Xylaria carpophila** (P.) Fr. Sum. Veg. Scand. p. 382. Nits. Pyr. Germ. p. 6. *Sphæria carpophila* Pers. Obs. myc. I. 19. — Stromate assurgente, flexuoso, gracili, filiformi, nigricante, simplici et terete, v. apice paullo spathuliformi- dilatato, immo bipartito, duasque clavulas gerente, basi plus minus villoso; hymenio conidifero cinereo v. cinereo-olivaceo; conidiis minutissimis, ovatis; clavula perithecigera stipite crassiore ac plerumque breviore, subulata, peritheciis nonnihil exstantibus tuberculosa, apice sterili; peritheciis subglobosis; ascis cylindricis, pedicellatis, octosporis, 80 ≃ 6 p. sporif.; sporidiis oblique monostichis, fusiformibus, obtusis, atrofuscis, inæquilateralibus, 12–16 ≃ 4–5. 1270

Hab. in pericarpiis putrescentibus Fagi sylvaticæ, rarius Diospyri, Goniothalami, Liquidambaris, in Britannia, Germania, Belgio, Gallia, Italia, Suecia, Amer. bor. Ceylon.

122. **Xylaria Oxyacanthæ** Tul., Carp. II, p. 15, tab. 13, fig. 1–10. *X. Fuckelii* Nits. Pyr. Germ. p. 7. — Stromate primo hypogæo, deinde e terra emergente, nunc simplici et terete, nunc contra versus apicem dilatato-compresso, varieque partito, nigerrimo, basi villoso; hymenio conidifero ex albido dilute flavicante; conidiis, globosis, minimis; clavula perithecigera crassa, apice sterili; peritheciis dense stipatis, vix prominentibus; ascis cylindricis breviter pedicellatis, octosporis, 80–100 μ. longis; sporidiis oblique monostichis, ovatis, inæquilateralibus, atrofuscis, 10 ≃ 4. 1271

Hab. in fructibus humi dejectis Cratægi Oxyacanthæ, in Gallia. — A *X. carpophila* (Pers.) recedit stromate robustiore breviore, magis diviso, parte conidiophora flavicante etc.

123. **Xylaria Delitschii** Auersw. Hedw. 1868, p. 136. *X. Fuckelii* Nits. (p. p. in fructibus Carpini). — A typo differt stromatibus simplicibus cylindricis, nec bifidis, compressis; ascis et sporidiis ut *X. Hypoxyli*, a qua differt conidiis globosis nec lanceolatis. 1272

Hab. in fructibus Carpini, Lipsiæ (Auerswald.).

124. **Xylaria flabelliformis** (Schw.) B. et Curt. Cuban Fungi n. 793. *Sph. flabelliformis* (Schw.) Fr. Elench. II, 58, Schw. Syn. Am. bor. p. 189. *Merisma nigripes* Schw. Syn. Carol. p. 85. — Coria- 1273

cea, clavula palmato-incisa, fimbriata, pubescente, luteo-carnea, stipite subbulboso nigro, villoso.

Hab. in ramis et lignis dejectis Carolinæ, Pensylvaniæ, Ceylon, Cuba. — Valde singularis plantula, in statu sterili *Isariæ* æmula. Specimina solitaria, $^1/_2$ unc. alta vel paulo ultra; basi bulbosa, ovata, villosa, abrupte nigricante; clavula apice sterili compressa, irregulariter fimbriata dentataque, tuberculata; subinde in ramos palmatos finditur. Color in siccis ob pubescentiam pulverulentam albicans. Perithecia minuta. Junior *Thelephoram* quamdam in memoriam revocat.

125. **Xylaria Feejensis** (Berk.) Fr. Nov. Symb. 128. *Sphæria* (Hypoxylon) *Feejensis* Berk. descrip. fung. Hinds p. 10. — Suberosa, simplex, vel sursum palmata, fusco-purpurea, rugosa, rimulosa; peritheciis minutis subglobosis subprominulis, ostiolis nigris; stipite brevi vel nullo; sporidiis minutis, segmentiformibus. 1274

Hab. in truncis putridis Feeje, insulæ m. Pacifici (R. B. Hinds).

126. **Xylaria dichotoma** Mont. Syll. p. 204. Cuba, p. 351, t. 13, f. 3, sub *Hypoxylo*, nec Lév. — Cæspitosa, subcarnosa, teres, dichotoma, sub axillis compressa, atro-fusca opaca, solida, intus pallida, undique, apicibus stipitibusque villosis exceptis, peritheciis minutis, globosis prominentibus papillatis tecta. 1275

Hab. ad ligna dejecta, Cuba (Ramon de la Sagra).

127. **Xylaria Arbuscula** Sacc. M. V. n. 1192. Mich. I. 249. Fung. ital. t. 583. — Gregaria, fasciculata, arbusculiformis, atra; stipitibus gracilibus, cent. $1^1/_2$-$2^1/_2$ alt. mill. $1^1/_2$-2 cr., adscendentibus, tomentosis; clavulis (conidiophoris) attenuatis, sæpe compressis, apice albicantibus (conidiis nondum visis), clavulis pyrenophoris teretibus, apice breviter sed acute cuspidatis, $^1/_2$-1 cent. long., 1-$1^1/_2$ mill. cr., initio longitudinaliter cinereo-rivulosis, tandem, ob perithecia, depresse tuberculatis; peritheciis globosis immersis, vix $^1/_2$ mill. diam. papillulatis; ascis cylindraceis longiuscule stipitatis, p. sporif. 80 ≃ 8-10, stip. 30-40 long., apice rotundatis, aparaphysatis, 8sporis; sporidiis oblique monostichis, oblongo-fusoideis, 14-16 ≃ 5-7, curvulis, 1-2-guttatis, initio hyalinis, dein cinereis, tandem atro-fuligineis. 1276

Hab. in cistis ligneis putrescentibus muscosis Orchideas tropicales hospitantibus in calidario Horti Levi, Treviso, Ital. bor. — A *Xyl. Hypoxylo* (L.) Grev., *X. cupressiformi* (Mich.) Becc. et pluribus exoticis satis diversa.

128. **Xylaria acuta** Peck, 25 Rep. p. 101. — Gregaria aut cæspito- 1277

sa, 1–1,5 alta; stromate cylindrico aut subfusiformi, sæpius apice sterili acuto, nigricante, intus albo, radiato-contexto; stipite tomento mucedineo purpurascente obvoluto, simulateque bulboso; peritheciis globosis nigris; sporidiis monostichis, ellipsoideis, interdum curvulis, coloratis, 15–18 μ. long.

Hab. in Amer. boreal. Greig, in truncis muscosis. — A *X. digitata* differt habitu cæspitoso, stipite et substantia interiore.

129. **Xylaria Cornu-Damæ** (Schw.) Berk. North Am. Fungi p. 158, 1278
Sph. (Cordyceps) *Cornu-Damæ* Schw. Syn. Am. bor. n. 1163. — Suberosa, aterrima, crassiuscula, trunco subradicato, varie torto, atro-floccoso in radice, compresso, in apice furcato-ramoso, dilatato; plerumque apicibus abrupte acuminatis, demum fertilibus, exacte ut cornu damæ; apice juniori squamuloso-cinerascente, ceterum tomento atro undique brevissimo vestito; peritheciis majusculis prominulis, ostiolis obtusato-cylindricis brevibus; intus candidissimo; sporidiis (teste Berk.) curvulis, angustis, 15–26 μ. longis.

Hab. in truncis antiquis dejectis subdefossis, Bethlehem Am. bor. — *X. Hypoxylo* affinis sed multo crassior.

130. **Xylaria mucronata** (Schw.) Sacc. *Sph. mucronata* Schw. New 1279
Sphær. Amer. p. 5. t. 1, fig. 1, Fr. S. M. II, 326. — Carnosa, simplex, badia, clavula incrassata lutescente, apice sterili mucronato, peritheciis atris.

Hab. in trunco Liriodendri Carolinæ Amer. bor. — Stipes badius, subsquamosus, inflexus, compressus, unciam altus, 4 lin. crassus. Clavula incrassata, irregularis. Perithecia majora, prominula, ostiolis globosis, nigris. Asci moniliformes, post evacuationem teretes. Sporidia subglobosa, atra.

131. **Xylaria piperiformis** Berk. Decad. n. 481. — Clava gracili, cy- 1280
lindrica, sæpius apice acuminata sterili; stipite elongato flexuoso lineato-rugoso radicante; ostiolis prominentibus; sporidiis minimis, 6 μ. longis, cymbiformibus.

Hab. in India, Sikkim. — Stipes 50–70 mill. alt., 2 mill. cr.; clavula 25–50 mill. longa, vix 2 mill. cr.; ostiolis rugulosa, subinde pruinosa; perithecia elliptica.

132. **Xylaria subterranea** (Schw.) Sacc. *Sph.* (Hypoxylon) *subterra-* 1281
nea Schw. New Am. Sphæriæ p. 4, t. 1, fig. 3, et in Linnæa IV. Litt. 45. — Caulescens suberosa, indivisa, longissima, apice elongato griseo, pulverulento, integro, ex reliquo nigricans, $^1/_2$ ped. alta, basi flexa hirsuta, indeque usque ad medium tenui-fusco-tomentosa; peritheciis sparsis, in parte pulverulenta rarioribus.

Hab. in fodinis et puteis, New Jersey, Amer. bor.

133. **Xylaria ianthino-velutina** Mont. Syll. Crypt. n. 690 et Cent. II, n. 34 et Guy., n. 492. — Simplex vel ramosa, teres, apice acuto compressa, undique villo longo violaceo-brunneo hirta aut vestita; peritheciis superficialibus, subliberis ovoideis depressis sparsis demum pertusis inter setulis; sporidiis monostichis naviculari-subpyriformibus, 12–13 μ. long. 1282

Hab. in fructu putrido Hymeneæ Courbaril in Guyana (Leprieur), in legumine ligneo in Brasilia (Traill). — An eadem cum *X. Apeibæ* Mont.?

Sect. 4. *Xylostyla* Fr. l. c. clava apice sterili, stipite glabro.

134. **Xylaria digitata** (Linn.) Grev. Flor. Edin. 356. Nits. Pyr. Germ. p. 9. *Clavaria digitata* Linn. S. Veg. ed. XV, p. 1010. — Stromate erecto, crasso, fusco, leproso- velutino, glabro, terete ac simplici, apice sensim attenuato, rarius obtuso, immo emarginato v. in ramos 2–3 dichotome partito, rarissime plus minus compresso ac furcato, basi connato v. tanquam in corpus solidum, crassissimum confluente hymenio conidifero ex albido-fuscescente; conidiis obovato-subglobosis, minimis; clavula perithecigera mediam stromatis partem occupante, et in stipitem brevem et in apicem sterilem continuo transiente, peritheciis numerosissimis, denseque stipatis, paullo prominentibus rugosa; ascis cylindricis, longe pedicellatis, octosporis, 120 ≃ 7 p. sporif.; sporidiis oblique monostichis, fusiformibus, obtusis, inæquilateralibus, atrofuscis, 18–20 ≃ 5–6. 1283

Hab. in lignis fabrefactis et trabibus putrescentibus udis in Britannia, Germania, Suecia, Gallia, Italia, Helvetia, America bor., Brasilia, Java, Ceylon. — Var. *Americana* Peck.; sporidiis minoribus, 12–13 μ. longis ceterum non diversa. New York. — Var. *torulosa* Jungh. Præm. Fl. Java, p. 22; clavulis torulosis. In truncis Javæ. — Var. *dubia* Jungh. l. c. stromatibus sphæroideis stromati communi effuso subimmersis; peritheciis magnis. In truncis, Javæ. Hæc verisimiliter spectat ad sect. IV. *Xypoxyli* (Cœnopus).

135. **Xylaria grandis** Peck, 26 Rep. p. 85. — Magna, nigrobrunnea, irregularis, apice sterili obtusa acuminata, rubiginosaque, basi abrupte attenuata, intus albicante; peritheciis subglobosis; sporidiis fusoideis, utrinque acuminatis, rectis vel curvatis, 20–23 μ. long.; stipite ramoso, radiante, sæpe valde elongato. 1284

Hab. in Amer. bor. Portage ad terram. — Planta 7–12 cent. alt., clava 3–7 cent. long., 16–20 mill. cr. Stipite ramoso, apice sterili

acuto, mole majori differt a *X. polymorpha;* sporidiis majoribus a *X. digitata.*

136. **Xylaria bulbosa** (Pers.) Berk. et Br. in Berkeley, Outl. of Brit. Fung. p. 385, t. 24, f. 2, *Sph. bulbosa* Pers. Obs. mycol. II, 63, t. I, f. 1. — Stromate erecto, crasso, simplici v. apice furcato, tereti v. rarius apicem versus paullo dilatato-compresso, glabro, nigricante, basi tuberoso; clavula perithecigera apice sterili, simplici v. bi-tricruri, peritheciis dense stipatis, nonnihil prominentibus mammillosa, tereti v. subcompressa, stipite brevi; ascis cylindricis, pedicellatis, octosporis, plerumque pseudoparaphysibus filiformibus, simplicibus, septatis longe superatis, 80–84 ≃ 6–7 p. sporif.; sporidiis oblique monostichis, fusiformibus, obtusis, inæquilateralibus, fuscis, 12 ≃ 4. 1285

Hab. inter muscos et folia Pinorum ad terram in Germania, Britannia, Italia, Carolina, rarius.

137. **Xylaria graminicola** Gerard, in Peck 26 Rep. n. 85. — Tenuis, cylindrica, indivisa, intus viridi-pulverulenta, dein nigro-brunnea, ob perithecia globosa prominula exasperata, vertice sterili, acuto; stipite levi, recto vel flexuoso, brunneo; sporidiis monostichis, inæqualiter ellipsoideis, 10 ≃ 5. 1286

Hab. in Amer. bor., Ponghkeepsie in rhizomate graminum languentium (Gerard). — Planta 2 circ. alta, *Xylariæ Hypoxylo* affinis.

138. **Xylaria cæspitulosa** Ces. Myc. Born. p. 15. — Dense cæspitosa, cæspitibus pollicem altis e stipite basi ramoso, ramis erectis vel adscendentibus filiformibus, compressis, in clavulam tenuem cylindraceam torulosam apice sterili producto desinentibus; tota brunnea glabrata; sporidiis (ex Cooke) 12 ≃ 3,5. 1287

Hab. in truncis ad Sarawak, Borneo. — Ex mente cl. Berkeleyi ad veram *X. scopiformem* reduci posset; dissentit cl. Cooke.

139. **Xylaria scopiformis** Mont. Ann. Scienc. nat. 1840, XIII, p. 349, *Hypoxylon scopiforme* Kunze (Diagnosim reperire non potui. Cfr. ad *X. cæspitulosam* Cesati). 1288

Hab. in radicibus et truncis putridis in Guiana, Surinam, Brasilia, Ceylon, Cuba. — Sporidia 10 μ. longa. — Adest var. *elatior:* clavulis elongatis torulosis. Ceylon (Beccari).

140. **Xylaria fasciculata** Speg. Fungi Arg. Pug. II, p. 19. — Stromatibus rimis ligni et corticis innatis, non vel vix exertis, 15–50 densissime gregarie congestis; stipitibus glabris rugulosis, atris, longissime subrhizomorphoideis, ligni profunde radicatis, sæpius 1289

mycelio albo-fibroso, sub-arachnoideo vestitis; clavulis, 1-1$^1/_3$ cent. alt., basi subteretibus undulato-gibbulosis et peritheciferis, 3-4 mill. long., sursum sterilibus compressis, apice obtuso vel acuto, integro vel lobulato donatis, quandoque strato conidiophoro griseo-croceo vestitis, minute ruguloso-foveolatis, extus atris, intus albis; ascis clavatis, sursum acutiusculo rotundatis, deorsum in pedicellum longiusculum attenuatis, 90-100 ≃ 18-20, octosporis, paraphysibus filiformibus crebris obvallatis; sporidiis distichis vel inferne monostichis, elliptico-elongatis, 15 ≃ 5, utrinque attenuato-rotundatis ac uniguttulatis, inæquilaterali-cymbiformibus, dilute griseo-fuscis.

Hab. in trunco dejecto subputrescente Salicis Humboldtianæ secus Rio de la Plata, cerca de la Recoleta, Argent. Americæ australis.

141. **Xylaria cristata** Speg. Fung. Arg. I. p. 179. — Stromatibus, 1290
1-2,5 cent. alt., solitariis, sparsis, rarius 2-5 gregariis vel 2-connatis; stipite brevi, quandoque deficienti compresso vel tereti, glabro, ruguloso, atro; clavula subtereti, undulato-gibbulosa, ob perithecia prominula scabrosula, intus alba in apicem, parti peritheciferæ subæquilongum, sterilem quandoque (sed rarius) teretem quandoque, sæpius, compressum 2-5 laciniato-cristatum, albido-roseo-croceum, conidiis vestitum, producta; peritheciis stromati immersis, globulosis, e mutua pressione quandoque angulosis, $^1/_4$-$^1/_5$ mill. diam., atris, ostiolo inconspicuo perforatis; ascis cylindraceis, 70 ≃ 6-8 p. sporif., 30 ≃ 5 ped.; apice rotundatis in stipitem deorsum attenuatis, octosporis, aparaphysatis(?); sporidiis oblique monostichis, elongato-navicularibus, 12-15 ≃ 4-5, utrinque obtusiusculis, granuloso-farctis, opace fuligineis.

Hab. ad caudices vetustos emortuos Salicis Humboldtianæ in umbrosis secus Rio de la Plata a la Recoleta, Argent.

142. **Xylaria coccophora** Mont. Syll. Crypt. n. 699 et Guy., mss., 1291
n. 502. — Dichotoma, suberosa, tereti-compressa, gracilis; stipite atro, axillis dilatato-complanato; clavulis teretibus apice mucronatis torulosis velo fulvo rimuloso primitus vestitis; peritheciis prominulo-exsertis; ascis cito diffluentibus, octosporis; sporidiis inæqualiter cymbiformibus, 10 μ. longis.

Hab. ad ligna putrida, Cayenna (Leprieur).

143. **Xylaria vaporaria** Berk. Curr. Linn. Trans. XXIV, t. 25, f. 17, 1292
26. — Stromate sclerotioideo, suberoso, rugoso, irregulari, sursum protuberantiis brevibus terminato; clavulis conicis stipitatis, tantum inferius peritheciophoris, atris, sursum attenuatis, pulverulentis,

rubescenti-fuscis; peritheciis subsparsis, prominulis, nucleo nigro glutinoso; sporidiis octonis, navicularibus, biseriatis, nigricantibus, 40–50 μ. longis.

Hab. in Sclerotio inter fungos cultos, Cornwell (Britannia).

144. **Xylaria phyllophila** Ces. Myc. Born. p. 15. — Abunde paginam 1293
utramque foliorum arboris mihi ignotæ obsidens; stipite pollicem et semis longo, filiformi, atro, glabro, in longitudinem striato; clavula tenui, cylindracea, dimidii centimetri usque centimetrum et ultra longa, umbrina, torulosa, apiculata, immo aristata.

Hab. in Sarawk, Mattang, Borneo. — An eadem ac *X. Phyllocharis* Mont.?

145. **Xylaria Phyllocharis** Mont. Syll. Crypt. n. 698 et Guy., mss., 1294
n. 501. — Simplex, filiformis; clavula cylindrica carnosa, stipite glabro striatulo atro longiori mucronulata; peritheciis membranaceis innato-perihericis, ostiolis atris prominulis; ascis subtetrasporis, sporidiis ovoideis minutis brunneis, 13 μ. longis.

Hab. ad folia dejecta prope Cayennam (Leprieur).

146. **Xylaria inæqualis** B. et C. Cuban Fungi n. 805. — Receptaculo 1295
filiformi rugoso, peritheciis sparsis papilloso; e basi conica spongiosa oriundo; sporidiis gibbis, utrinque acutiusculis 15 μ. longis.

Hab. in ligno putri, in Cuba et Brasilia. — Basis conica 5 mill. longa, clava 20 mill. longa.

147. **Xylaria filiformis** (Alb. et Schw.) Fr. Summ. Veg. Scand. p. 382, 1296
Nits. Pyr. Germ. p. 12, Sacc. Fungi it. t. 584, *Sph. filiformis* Alb. et Schw. Lus. p. 2, *X. subularis* Fr. S. V. S. 382, *Thamnomyces hippotrichoides* Sacc., olim, nec B. et Br. — Stromate erecto, nigricante, glaberrimo, lævi, immo nitidulo, simplici, furcato v. varie ramoso, filiformi, subflexuoso, plerumque compresso, rarissime apicem versus dilatato, bicruri; clavula perithecigera stipite breviori ac vix crassiori a stromatis parte superiore sterili, rosea, sæpe incurva, apicem versus sensim attenuata longe superata; peritheciis globosis valde prominentibus papillatis aspera; «ascis cylindricis longiuscule stipitatis, apice rotundatis 80–100 ≃ 6–7 p. sporif., 70 μ. longa, paraphysibus veris nullis, octosporis; sporidiis oblique monostichis, oblongo-fusoideis, inæquilateralibus, 12–15 ≃ 5, 2–3-guttatis, fuligineis».

Hab. in foliis putridis, ligni corruptis, corticibus dejectis in Suecia, Germania, Fennia, Belgio, Gallia, Italia, Brasilia, Amer. bor., Venezuela, Cuba.

148. **Xylaria tricolor** Fr. Nov. Symb. 128. — Simplicissima, tenaci, 1297

subulata, gracili, longitudinaliter rugosa, undique glabra, basi nigra, medio fertilis cinerea, apice sterilis fulvella, peritheciis latentibus, ostiolis punctiformibus.

Hab. ad truncos in insula oceanica Oahu (DIDRICHS.). — Fungus 1-2 unc. altus, *X. filiformi* subaffinis.

149. **Xylaria furcata** Fr. Nov. Symb. 128, *Sph.* (Cordyceps) *dichotoma* Lév. Ann. Scienc. nat. 3, 1845, p. 45, nec Mont. (teste Friesio) *Sph. scoparia* Lév. MS. — Gregaria, filiformis, teres nuda, nigra, dichotoma, axillis compressis, ramulis ultimis subulatis, albis. 1298

Hab. in Javâ ad truncos (KORTHALS), Sarawak, Borneo (BECCARI). — Stroma 1 decim. longum. *X. scopiformi* affinis.

150. **Xylaria gracillima** Fr. Nov. Symb. 128, *Sph. gracillima* Fr. in Linnæa 1830, p. 538. — Simplex, tenax, teres, subcapillaris, glabra lineolis nigris in ligno serpens, nigrescens, apice testaceo-pallens; peritheciis lateralibus, raris immerso-latentibus, globosis, nigris. 1299

Hab. ad ligna putrida sylvarum Cayennensium, cum *Thamnomyce.* — Clavulæ filiformes, 4-6 lin. longæ, simplices.

151. **Xylaria Rhizomorpha** Mont. Syll. Crypt. n. 678 et Cent. II, n. 24, *Rhyzomorpha guyanensis* Fr. Summa V. S. 382 et Nov. Symb. 128. — Carnoso-suberosa, atra, intus nigrescens, a basi ramosa, dichotoma, teres, lævis, apicibus filiformi-attenuatis; peritheciis superficialibus sparsis, raro confluentibus, depresso-globosis vel ovoideis, ostiolo papillæformi; sporis generis. 1300

Hab. in sylvis Guyanæ (LEPRIEUR), Sarawak ad Mattang (BECCARI).

152. **Xylaria axifera** Mont. Syll. Crypt. n. 695 et Guy., mss., n. 498, t. 3, f. 7. — Stipite axiformi filiformi rufo-fuscescente puberulo; clavula prope apicem irregulariter globosa extus intusque atra; peritheciis paucis magnis prominentibus ostiolis inconspicuis; sporidiis subquaternis, oblongo-fusiformibus fuscis. 1301

Hab. in ramis arborum circa Cayennam (LEPRIEUR), Sarawak, Borneo (BECCARI), in petiolis putridis Sciadophylli in Cuba (BERK.).

153. **Xylaria Apeibæ** Mont. Syll. Crypt. n. 693, Guy., mss., n. 493. — Suberosa, filiformis, dichotoma, divisionibus patenti-erectis hirsutiuscula; peritheciis sparsis exertis mamillatis, atris; sporidiis..... 1302

Hab. in fructibus Apeibæ, Guyana (LEPRIEUR), Brasilia (TRAILL).

Subg. *Thamnomyces* Ehrenb. Rhizomorpha Auct. p. p. — Stroma rigidum carbonaceum, subfragile, teres vel filiforme. Perithecia superficialia, laxa. — Plures Xylariæ species e. g. n. 147, 149, 150 etc. in hoc subgenus transeunt.

154. **Xylaria hippotrichoides** (Sow.) Sacc. *Sph. hippotrichoides* Sow. t. 200, *Hypox. loculiferum* Bull., *Ceratonema hippotrich.* Pers., *Rhizomorpha tuberculosa* Ach., *Cryptothamnium usneæforme* Wallr., *Rhizomorpha setiformis* Roth., *Chænocarpus setosus* Reb., *Chænocarpus Simonini* Desm. — Subfasciculata, filiformis, adscendens, nigra, ramosa; peritheciis sparsis, superficialibus, globoso-conicis, obtuse papillatis; ascis .....; sporidiis ovoideis inæquilateralibus, atrofuscis, 16 ≃ 10. 1303

Hab. in udis, cellis vinariis ad fragmenta lignea, telas, suberem etc. putrescentia, in Gallia, Germania, Belgio, Britannia. — Perithecia quandoque brevissime stipitata, initio tomentella. Asci sec. Kickx subclavati; sporidia oblique monosticha.

155. **Xylaria rostrata** (Mont.) Sacc. *Thamnomyces rostratus* Mont. Syll. crypt. n. 701, Cent. II, n. 21, t. 6, f. 2. — Ramosa, ramis teretibus, longissimis, erectis; peritheciis lateralibus, sessilibus, ovoideis, patentibus, ostiolo longo acuto rostratis; sporidiis fuscis, phaseoliformibus, 7–8 ≃ 3–3,5. 1304

Hab. ad truncos prostratos in sylvis Cayennæ (Leprieur), Panuré, Brasilia (Spruce). — Var. *similis* Berk. Dec. of Fungi n. 620*: peritheciis suberostratis. In Brasilia.

156. **Xylaria adnata** (Fuck.) Sacc. *Rhizom. adnata* Fuck. Symb. myc. p. 237, t. IV, fig. 24. — Stromatibus late effusis, primo ligno putrido adnatis, demum (carie consumpto) liberis, $^1/_4$ lin. crassis, atrofuscis, superficie rugulosis, fragilissimis; peritheciis superficialibus, conicis, sparsis; sporidiis (ascis?) 16–20 ≃ 8, aut sporidiolis repletis, aut vacuis, lutescentibus. 1305

Hab. in ligno putrido excavato Fagi sylvaticæ pluribus locis Wiesbaden inter et Rüdesheim (Germania).

157. **Xylaria fragilis** (Roth) Sacc., *Rhizomorpha fragilis* Roth, Cat. I, 231. Fr. Nov. Symb. p. 231. — Stromatibus subrepentibus subcorticalibus, subinde erumpentibus, glabris, cylindraceo-filiformibus, subcompressis, tortuosis vage et repetite ramosis, fusco-nigricantibus, ramulis pallidioribus; peritheciis subsparsis conico-ovatis, papillatis, superficialibus; ascis octosporis; sporidiis curvulis Hypoxylorum (teste Fries l. c.). 1306

Hab. sub cortice arborum variarum, Salicum, Quercuum, Fagorum in tota fere Europa, rarissime fructificans.

158. **Xylaria hispidissima** (Fr.) Sacc. *Rhizomorpha hispidissima* Fr. 1307
Nov. Symb. 129. — Simplicissima, fragillima, usque ad perithecia depresso-globosa papillata strigoso-hispidissima, atra, apice tenuissimo, subulato, concolori; peritheciis subliberis, depresso-globosis, papillatis, glabris; ascis sublinearibus, octosporis; sporidiis monostichis, oblongis, inæquilateralibus, fuligineis.

Hab. in insula Nikobar majori (Didricks.) — Affinis *X. filiformi*, sed fragilitate, peritheciis exogenis etc. distincta.

159. **Xylaria Chamissonis** (Ehrenb.) Sacc. *Thamnomyces Chamissonis* 1308
Ehrenb. F. Chamiss. p. 79, t. XVII, fig. 1. — Stromate rigido peritheciis concolore fusco-nigro, caudicibus repetito-dichotomis teretibus ad 6 poll. altis, basi 2 lin. crassis, sensim gracilioribus ramis apice crebrioribus brevioribus; peritheciis ramulis adnatis, hinc inde 2–4 aggregatis, globosis, papillatis, ostiolo pertuso albo; ascis cylindraceis; sporidiis monostichis, ovoideis.

Hab. in insula brasiliensi S. Catharina in rupibus (Chamisso, et nuperius Spruce).

160. **Xylaria annulata** (Ehrenb.) Sacc. *Thamnomyces annulatus* 1309
Ehrenb. Fungi Cham. p. 82. — Fusco-nigricans, intus concolor, cava, stromate rigido in ramos abeunte, ramis simplicibus teretibus ultra 4 pollices longis, cylindricis, vix $^1/_3$ lin. crassis, sub lente annulatis ubique peritheciis sparsis, globosis, papillatis obsitis.

Hab. in India occidentali (Hornschuch). — Natura cum *X. Chamissonis*, habitu vero cum *X. hippotrichoide* convenit.

161. **Xylaria chordalis** (Fr.) Sacc. *Thamnomyces chordalis* Fr. in 1310
Linnæa 1830, p. 534. — Cæspitosa, stricta, filiformis, simplicissima subfarcta, atra; peritheciis ad latera protuberantibus, sparsis, globoso-ovatis, obtusis; ascis linearibus; sporidiis globulosis.

Hab. in sylvis Cayennensibus (Richard, Dufour). — Fungus 20–24 cent. alt., filo vix crassior, rigidus, levis, sursum longe cuspidatus.

162. **Xylaria fuciformis** (Berk.) Sacc. *Thamnomyces fuciformis* 1311
Berk. Dec. n. 620. — Stipite crassiusculo filiformi, flexuoso, 2 mill. cr.; ramulis rectis 4 mill. longis regulariter vestito; ramulis centro inflatis cavisque; peritheciis.....

Hab. in truncis putridis Panuré, Brasilia (Spruce). — Habitus Fuci cujusdam potius quam fungi.

163. **Xylaria annulipes** (Mont.) Sacc. *Thamnomyces annulipes* Mont. 1312

Syll. n. 702 et in Ann. 2, p. 75, t. 4, f. 4. *Acrosphæria annulipes* Corda Anl. p. 136. — Cæspitosa, simplex, flexuosa, annulata, pollicaris, atra, farcta; perithecio terminali sphærico, extus granulato; ascis oblongis octosporis, subsessilibus; sporidiis distichis, ovoideo-globosis pellucidis.

Hab. ad cortices in Monte Corcovado Brasiliæ (Gaudichaud). — Ex icone Mont. sic dictum perithecium sphæricum granulatum potius ut capitulum, e peritheciis pluribus formatum, habendum mihi videtur

Species mihi ignota.

164. **Xylaria fulvo-lanata** Berk. Lond. Journ. (1842) I. pag. 154, *X. fulvo-velutina* Fr. Novæ Symb. mycol. p. 128. — In insulis Philippinis. — Diagnosim reperire non contigit. 1313

CAMILLEA Fries, Summa V. S. p. 382. Mont. Syll. Crypt. p. 207 (Etym. ab ill. *Camillo Montagne*). — Stroma verticale, terminiforme, carbonaceum, stipitem mentiens, basi sæpius annulo matricali helciiformi cinctum. Perithecia heterogenea, linearia aut phialiformia, membranacea, stromate immersa, in orbem disposita et ad apicem truncatum excavatum marginatumque stromatis spectantia, subostiolata vel modo poro pertusa. Asci cylindrici, gelatinosi, deliquescentes, paraphysibus capillaribus immixti, octospori. Sporidia oblonga aut cymbiformia, continua, typice fusca, appendiculo ut plurimum uromorpho fine altero caudata.

Mens erat hoc memorabile genus nec non forte *Kretschmariam*, *Leveilleam*, *Cordieritem* etc. in subordinem proprium seorsim ponere, sed analogia *Camilleæ* cum *Hypoxylo* nimia est et quoad cetera genera modo citata, eorum cognitio nondum satis plena.

1. **Camillea Leprieurii** Mont. Syll. Crypt. n. 703 et Cent. II, n. 40, t. 10, f. 3, sub Bacillaria et Guy., n. 507, t. 5, f. 1. — Cylindrica, carbonacea, polita, extus intusque atra, basi annulo stromatico ochreata, apice primum cortice orbiculatim rupto sublevatoque velata, dein disco abrupte excavata; margine disci obtuso; peritheciis amplis oblongis erectis, peripheriicis, collo brevissimo aut nullo, ostiolo in areola insculpta papillato; ascis linearibus prælongis 8-sporis; sporidiis cymbiformibus primo seriato-concatenatis, dein liberis, 22–25 ≃ 6–7, caudatis; paraphysibus acicularibus. 1314

Hab. ad cortices ramorum emortuorum in sylvis Guyanæ (Leprieur), Caripi Brasiliæ (Spruce).

2. **Camillea Bacillum** Mont. Syll. Crypt. n. 704. Cent. I. n. 32, sub Thamnomyce; Cuba, p. 343, sub Hypoxylo, et Guy., n. 509, t. 5, f. 3. — Simplex; stipite cylindrico, basi annulato-ochreato, sursum in clavulam teretem æqualem obtusam, apice punctulatam abeunte; peritheciis paucis oblongo-attenuatis; collo subtilissimo ostioloque impresso instructis; sporidiis reniformibus, fuscis. 1315

Hab. in cortice corrupto ad S. Marcos Cubæ (Auber), in Antillis (Mougeot), Guyana (Mont.).

3. **Camillea Cyclops** Mont. Syll. Crypt. n. 705 et Cent. II, n. 41, t. 10, f. 4, et Guy., n. 510, t. 5, f. 2. — Stroma e ligno erumpens, carbonaceum, cylindricum, crassum, breviusculum, durissimum atro-nitens apice obtuso rotundato cupuliformi-excavatum; peritheciis immersis inordinatis erectis elongatis pressione mutua difformibus, ostiolis in disco parvo crasse obtuseque marginato vix prominulis; ascis cylindraceo-clavatis, octosporiis; sporidiis monostichis, oblongo-ellipsoideis, fuscis. 1316

Hab. ad ligna emortua prope Cayennam (Leprieur).

4. **Camillea Labellum** Mont. Syll. Crypt. n. 706 et Guy., mss., n. 511, t. 5, f. 5. — Erumpens, velo crasso verrucoso primitus involuta, dein libera; stromate tereti brevi crasso apice cupulari-aperto, margine tenuissime granulato; peritheciis erectis oblongis in collum attenuatis et ostiolo prominulo papillæformi instructis; sporidiis fusoideo-navicularibus, 30 μ. longis, inæquilateris, fuscis. 1317

Hab. in truncis emortuis sub cortice nascens, Cayenna (Leprieur).

5. **Camillea mucronata** Mont. Syll. Crypt. n. 707 et Guy., mss., n. 508, t. 5, f. 4. — Stromate cylindraceo-conico, limitiformi, $6 \simeq 3$ mill. carbonaceo atro polito longitrosum striatulo, basi nudo, apice excavato crasse marginato, centro disci valide mamillato-mucronato; peritheciis inordinatis confertis elongatis circa basin mucronis discum ostiolo petentibus; ascis tubulosis 100 μ. longis; sporidiis ellipsoideo-oblongis, 2-guttatis, $10 \simeq 3{,}5\text{-}4{,}5$. 1318

Hab. ad ligna emortua nigrefacta in Guyana (Leprieur). — In disco stromatis adsunt perithecia conica spermatiis minimis fæta; an st. spermogonicus *Camilleæ?*

6. **Camillea surinamensis** Berk. et Curt. Exot. Fungi Schw. p. 285. — Subcongesta, opaca, non polita, brevis, apice obtuso, plano, leviter umbilicato; peritheciis..... 1319

Hab. in cortice putri, Surinam, Amer. merid. — Erumpens, ut species congeneres, gregaria, 4 mill. alta, $2^1/_2$ cr. Differt a *C. Sa-*

sa, 1-1,5 alta; stromate cylindrico aut subfusiformi, sæpius apice sterili acuto, nigricante, intus albo, radiato-contexto; stipite tomento mucedineo purpurascente obvoluto, simulateque bulboso; peritheciis globosis nigris; sporidiis monostichis, ellipsoideis, interdum curvulis, coloratis, 15-18 μ. long.

Hab. in Amer. boreal. Greig, in truncis muscosis. — A *X. digitata* differt habitu cæspitoso, stipite et substantia interiore.

129. **Xylaria Cornu-Damæ** (Schw.) Berk. North Am. Fungi p. 158, 1278
Sph. (Cordyceps) *Cornu-Damæ* Schw. Syn. Am. bor. n. 1163. — Suberosa, aterrima, crassiuscula, trunco subradicato, varie torto, atro-floccoso in radice, compresso, in apice furcato-ramoso, dilatato; plerumque apicibus abrupte acuminatis, demum fertilibus, exacte ut cornu damæ; apice juniori squamuloso-cinerascente, ceterum tomento atro undique brevissimo vestito; peritheciis majusculis prominulis, ostiolis obtusato-cylindricis brevibus; intus candidissimo; sporidiis (teste Berk.) curvulis, angustis, 15-26 μ. longis.

Hab. in truncis antiquis dejectis subdefossis, Bethlehem Am. bor. — *X. Hypoxylo* affinis sed multo crassior.

130. **Xylaria mucronata** (Schw.) Sacc. *Sph. mucronata* Schw. New 1279
Sphær. Amer. p. 5. t. 1, fig. 1, Fr. S. M. II, 326. — Carnosa, simplex, badia, clavula incrassata lutescente, apice sterili mucronato, peritheciis atris.

Hab. in trunco Liriodendri Carolinæ Amer. bor. — Stipes badius, subsquamosus, inflexus, compressus, unciam altus, 4 lin. crassus. Clavula incrassata, irregularis. Perithecia majora, prominula, ostiolis globosis, nigris. Asci moniliformes, post evacuationem teretes. Sporidia subglobosa, atra.

131. **Xylaria piperiformis** Berk. Decad. n. 481. — Clava gracili, cy- 1280
lindrica, sæpius apice acuminata sterili; stipite elongato flexuoso lineato-rugoso radicante; ostiolis prominentibus; sporidiis minimis, 6 μ. longis, cymbiformibus.

Hab. in India, Sikkim. — Stipes 50-70 mill. alt., 2 mill. cr.; clavula 25-50 mill. longa, vix 2 mill. cr.; ostiolis rugulosa, subinde pruinosa; perithecia elliptica.

132. **Xylaria subterranea** (Schw.) Sacc. *Sph.* (Hypoxylon) *subterra-* 1281
nea Schw. New Am. Sphæriæ p. 4, t. 1, fig. 3, et in Linnæa IV. Litt. 45. — Caulescens suberosa, indivisa, longissima, apice elongato griseo, pulverulento, integro, ex reliquo nigricans, $^1/_2$ ped. alta, basi flexa hirsuta, indeque usque ad medium tenui-fusco-tomentosa; peritheciis sparsis, in parte pulverulenta rarioribus.

Hab. in fodinis et puteis, New Jersey, Amer. bor.

133. **Xylaria ianthino-velutina** Mont. Syll. Crypt. n. 690 et Cent. II, n. 34 et Guy., n. 492. — Simplex vel ramosa, teres, apice acuto compressa, undique villo longo violaceo-brunneo hirta aut vestita; peritheciis superficialibus, subliberis ovoideis depressis sparsis demum pertusis inter setulis; sporidiis monostichis naviculari-subpyriformibus, 12–13 μ. long. 1282

Hab. in fructu putrido Hymeneæ Courbaril in Guyana (Leprieur), in legumine ligneo in Brasilia (Traill). — An eadem cum *X. Apeibæ* Mont.?

Sect. 4. *Xylostyla* Fr. l. c. clava apice sterili, stipite glabro.

134. **Xylaria digitata** (Linn.) Grev. Flor. Edin. 356. Nits. Pyr. Germ. p. 9. *Clavaria digitata* Linn. S. Veg. ed. XV, p. 1010. — Stromate erecto, crasso, fusco, leproso- velutino, glabro, terete ac simplici, apice sensim attenuato, rarius obtuso, immo emarginato v. in ramos 2–3 dichotome partito, rarissime plus minus compresso ac furcato, basi connato v. tanquam in corpus solidum, crassissimum confluente hymenio conidifero ex albido-fuscescente; conidiis obovato-subglobosis, minimis; clavula perithecigera mediam stromatis partem occupante, et in stipitem brevem et in apicem sterilem continuo transiente, peritheciis numerosissimis, denseque stipatis, paullo prominentibus rugosa; ascis cylindricis, longe pedicellatis, octosporis, 120 ≃ 7 p. sporif.; sporidiis oblique monostichis, fusiformibus, obtusis, inæquilateralibus, atrofuscis, 18–20 ≃ 5–6. 1283

Hab. in lignis fabrefactis et trabibus putrescentibus udis in Britannia, Germania, Suecia, Gallia, Italia, Helvetia, America bor., Brasilia, Java, Ceylon. — Var. *Americana* Peck.; sporidiis minoribus, 12–13 μ. longis ceterum non diversa. New York. — Var. *torulosa* Jungh. Præm. Fl. Java, p. 22; clavulis torulosis. In truncis Javæ. — Var. *dubia* Jungh. l. c. stromatibus sphæroideis stromati communi effuso subimmersis; peritheciis magnis. In truncis, Javæ. Hæc verisimiliter spectat ad sect. IV. *Xypoxyli* (Cœnopus).

135. **Xylaria grandis** Peck, 26 Rep. p. 85. — Magna, nigrobrunnea, irregularis, apice sterili obtusa acuminata, rubiginosaque, basi abrupte attenuata, intus albicante; peritheciis subglobosis; sporidiis fusoideis, utrinque acuminatis, rectis vel curvatis, 20–23 μ. long.; stipite ramoso, radiante, sæpe valde elongato. 1284

Hab. in Amer. bor. Portage ad terram. — Planta 7–12 cent. alt., clava 3–7 cent. long., 16–20 mill. cr. Stipite ramoso, apice sterili

acuto, mole majori differt a *X. polymorpha;* sporidiis majoribus a *X. digitata.*

136. **Xylaria bulbosa** (Pers.) Berk. et Br. in Berkeley, Outl. of Brit. Fung. p. 385, t. 24, f. 2, *Sph. bulbosa* Pers. Obs. mycol. II, 63, t. I, f. 1. — Stromate erecto, crasso, simplici v. apice furcato, tereti v. rarius apicem versus paullo dilatato-compresso, glabro, nigricante, basi tuberoso; clavula perithecigera apice sterili, simplici v. bi-tricruri, peritheciis dense stipatis, nonnihil prominentibus mammillosa, tereti v. subcompressa, stipite brevi; ascis cylindricis, pedicellatis, octosporis, plerumque pseudoparaphysibus filiformibus, simplicibus, septatis longe superatis, 80–84 ≃ 6–7 p. sporif.; sporidiis oblique monostichis, fusiformibus, obtusis, inæquilateralibus, fuscis, 12 ≃ 4. 1285

Hab. inter muscos et folia Pinorum ad terram in Germania, Britannia, Italia, Carolina, rarius.

137. **Xylaria graminicola** Gerard, in Peck 26 Rep. n. 85. — Tenuis, cylindrica, indivisa, intus viridi-pulverulenta, dein nigro-brunnea, ob perithecia globosa prominula exasperata, vertice sterili, acuto; stipite levi, recto vel flexuoso, brunneo; sporidiis monostichis, inæqualiter ellipsoideis, 10 ≃ 5. 1286

Hab. in Amer. bor., Ponghkeepsie in rhizomate graminum languentium (Gerard). — Planta 2 circ. alta, *Xylariæ Hypoxylo* affinis.

138. **Xylaria cæspitulosa** Ces. Myc. Born. p. 15. — Dense cæspitosa, cæspitibus pollicem altis e stipite basi ramoso, ramis erectis vel adscendentibus filiformibus, compressis, in clavulam tenuem cylindraceam torulosam apice sterili producto desinentibus; tota brunnea glabrata; sporidiis (ex Cooke) 12 ≃ 3,5. 1287

Hab. in truncis ad Sarawak, Borneo. — Ex mente cl. Berkeleyi ad veram *X. scopiformem* reduci posset; dissentit cl. Cooke.

139. **Xylaria scopiformis** Mont. Ann. Scienc. nat. 1840, XIII, p. 349, *Hypoxylon scopiforme* Kunze (Diagnosim reperire non potui. Cfr. ad *X. cæspitulosam* Cesati). 1288

Hab. in radicibus et truncis putridis in Guiana, Surinam, Brasilia, Ceylon, Cuba. — Sporidia 10 μ. longa. — Adest var. *elatior:* clavulis elongatis torulosis. Ceylon (Beccari).

140. **Xylaria fasciculata** Speg. Fungi Arg. Pug. II, p. 19. — Stromatibus rimis ligni et corticis innatis, non vel vix exertis, 15–50 densissime gregarie congestis; stipitibus glabris rugulosis, atris, longissime subrhizomorphoideis, ligni profunde radicatis, sæpius 1289

mycelio albo-fibroso, sub-arachnoideo vestitis; clavulis, 1–1$^1/_3$ cent. alt., basi subteretibus undulato-gibbulosis et peritheciferis, 3–4 mill. long., sursum sterilibus compressis, apice obtuso vel acuto, integro vel lobulato donatis, quandoque strato conidiophoro griseo-croceo vestitis, minute ruguloso-foveolatis, extus atris, intus albis; ascis clavatis, sursum acutiusculo rotundatis, deorsum in pedicellum longiusculum attenuatis, 90–100 ≃ 18–20, octosporis, paraphysibus filiformibus crebris obvallatis; sporidiis distichis vel inferne monostichis, elliptico-elongatis, 15 ≃ 5, utrinque attenuato-rotundatis ac uniguttulatis, inæquilaterali-cymbiformibus, dilute griseo-fuscis.

Hab. in trunco dejecto subputrescente Salicis Humboldtianæ secus Rio de la Plata, cerca de la Recoleta, Argent. Americæ australis.

141. **Xylaria cristata** Speg. Fung. Arg. I. p. 179. — Stromatibus, 1290
1–2,5 cent. alt., solitariis, sparsis, rarius 2–5 gregariis vel 2-connatis; stipite brevi, quandoque deficienti compresso vel tereti, glabro, ruguloso, atro; clavula subtereti, undulato-gibbulosa, ob perithecia prominula scabrosula, intus alba in apicem, parti peritheciferæ subæquilongum, sterilem quandoque (sed rarius) teretem quandoque, sæpius, compressum 2–5 laciniato-cristatum, albido-roseo-croceum, conidiis vestitum, producta; peritheciis stromati immersis, globulosis, e mutua pressione quandoque angulosis, $^1/_4$–$^1/_5$ mill. diam., atris, ostiolo inconspicuo perforatis; ascis cylindraceis, 70 ≃ 6–8 p. sporif., 30 ≃ 5 ped.; apice rotundatis in stipitem deorsum attenuatis, octosporis, aparaphysatis (?); sporidiis oblique monostichis, elongato-navicularibus, 12–15 ≃ 4–5, utrinque obtusiusculis, granuloso-farctis, opace fuligineis.

Hab. ad caudices vetustos emortuos Salicis Humboldtianæ in umbrosis secus Rio de la Plata a la Recoleta, Argent.

142. **Xylaria coccophora** Mont. Syll. Crypt. n. 699 et Guy., mss., 1291
n. 502. — Dichotoma, suberosa, tereti-compressa, gracilis; stipite atro, axillis dilatato-complanato; clavulis teretibus apice mucronatis torulosis velo fulvo rimuloso primitus vestitis; peritheciis prominulo-exsertis; ascis cito diffluentibus, octosporis; sporidiis inæqualiter cymbiformibus, 10 μ. longis.

Hab. ad ligna putrida, Cayenna (Leprieur).

143. **Xylaria vaporaria** Berk. Curr. Linn. Trans. XXIV, t. 25, f. 17, 1292
26. — Stromate sclerotioideo, suberoso, rugoso, irregulari, sursum protuberantiis brevibus terminato; clavulis conicis stipitatis, tantum inferius peritheciophoris, atris, sursum attenuatis, pulverulentis.

rubescenti-fuscis; peritheciis subsparsis, prominulis, nucleo nigro glutinoso; sporidiis octonis, navicularibus, biseriatis, nigricantibus, 40–50 μ. longis.

Hab. in Sclerotio inter fungos cultos, Cornwell (Britannia).

144. **Xylaria phyllophila** Ces. Myc. Born. p. 15. — Abunde paginam utramque foliorum arboris mihi ignotæ obsidens; stipite pollicem et semis longo, filiformi, atro, glabro, in longitudinem striato; clavula tenui, cylindracea, dimidii centimetri usque centimetrum et ultra longa, umbrina, torulosa, apiculata, immo aristata. 1293

Hab. in Sarawk, Mattang, Borneo. — An eadem ac *X. Phyllocharis* Mont.?

145. **Xylaria Phyllocharis** Mont. Syll. Crypt. n. 698 et Guy., mss., n. 501. — Simplex, filiformis; clavula cylindrica carnosa, stipite glabro striatulo atro longiori mucronulata; peritheciis membranaceis innato-peripheriis, ostiolis atris prominulis; ascis subtetrasporis, sporidiis ovoideis minutis brunneis, 13 μ. longis. 1294

Hab. ad folia dejecta prope Cayennam (Leprieur).

146. **Xylaria inæqualis** B. et C. Cuban Fungi n. 805. — Receptaculo filiformi rugoso, peritheciis sparsis papilloso; e basi conica spongiosa oriundo; sporidiis gibbis, utrinque acutiusculis 15 μ. longis. 1295

Hab. in ligno putri, in Cuba et Brasilia. — Basis conica 5 mill. longa, clava 20 mill. longa.

147. **Xylaria filiformis** (Alb. et Schw.) Fr. Summ. Veg. Scand. p. 382, Nits. Pyr. Germ. p. 12, Sacc. Fungi it. t. 584, *Sph. filiformis* Alb. et Schw. Lus. p. 2, *X. subularis* Fr. S. V. S. 382, *Thamnomyces hippotrichoides* Sacc., olim, nec B. et Br. — Stromate erecto, nigricante, glaberrimo, lævi, immo nitidulo, simplici, furcato v. varie ramoso, filiformi, subflexuoso, plerumque compresso, rarissime apicem versus dilatato, bicruri; clavula perithecigera stipite breviori ac vix crassiori a stromatis parte superiore sterili, rosea, sæpe incurva, apicem versus sensim attenuata longe superata; peritheciis globosis valde prominentibus papillatis aspera; «ascis cylindricis longiuscule stipitatis, apice rotundatis 80–100 ≃ 6–7 p. sporif., 70 μ. longa, paraphysibus veris nullis, octosporis; sporidiis oblique monostichis, oblongo-fusoideis, inæquilateralibus, 12–15 ≃ 5, 2–3-guttatis, fuligineis». 1296

Hab. in foliis putridis, ligni corruptis, corticibus dejectis in Suecia, Germania, Fennia, Belgio, Gallia, Italia, Brasilia, Amer. bor., Venezuela, Cuba.

148. **Xylaria tricolor** Fr. Nov. Symb. 128. — Simplicissima, tenaci, 1297

subulata, gracili, longitudinaliter rugosa, undique glabra, basi nigra, medio fertilis cinerea, apice sterilis fulvella, peritheciis latentibus, ostiolis punctiformibus.

Hab. ad truncos in insula oceanica Oahu (Didrichs.). — Fungus 1-2 unc. altus, *X. filiformi* subaffinis.

149. **Xylaria furcata** Fr. Nov. Symb. 128, *Sph.* (Cordyceps) *dichotoma* Lév. Ann. Scienc. nat. 3, 1845, p. 45, nec Mont. (teste Friesio) *Sph. scoparia* Lév. MS. — Gregaria, filiformis, teres nuda, nigra, dichotoma, axillis compressis, ramulis ultimis subulatis, albis. 1298

Hab. in Javâ ad truncos (Korthals), Sarawak, Borneo (Beccari). — Stroma 1 decim. longum. *X. scopiformi* affinis.

150. **Xylaria gracillima** Fr. Nov. Symb. 128, *Sph. gracillima* Fr. in Linnæa 1830, p. 538. — Simplex, tenax, teres, subcapillaris, glabra lineolis nigris in ligno serpens, nigrescens, apice testaceo-pallens; peritheciis lateralibus, raris immerso-latentibus, globosis, nigris. 1299

Hab. ad ligna putrida sylvarum Cayennensium, cum *Thamnomyce.* — Clavulæ filiformes, 4-6 lin. longæ, simplices.

151. **Xylaria Rhizomorpha** Mont. Syll. Crypt. n. 678 et Cent. II, n. 24, *Rhyzomorpha guyanensis* Fr. Summa V. S. 382 et Nov. Symb. 128. — Carnoso-suberosa, atra, intus nigrescens, a basi ramosa, dichotoma, teres, lævis, apicibus filiformi-attenuatis; peritheciis superficialibus sparsis, raro confluentibus, depresso-globosis vel ovoideis, ostiolo papillæformi; sporis generis. 1300

Hab. in sylvis Guyanæ (Leprieur), Sarawak ad Mattang (Beccari).

152. **Xylaria axifera** Mont. Syll. Crypt. n. 695 et Guy., mss., n. 498, t. 3, f. 7. — Stipite axiformi filiformi rufo-fuscescente puberulo; clavula prope apicem irregulariter globosa extus intusque atra; peritheciis paucis magnis prominentibus ostiolis inconspicuis; sporidiis subquaternis, oblongo-fusiformibus fuscis. 1301

Hab. in ramis arborum circa Cayennam (Leprieur), Sarawak, Borneo (Beccari), in petiolis putridis Sciadophylli in Cuba (Berk.).

153. **Xylaria Apeibæ** Mont. Syll. Crypt. n. 693, Guy., mss., n. 493. — Suberosa, filiformis, dichotoma, divisionibus patenti-erectis hirsutiuscula; peritheciis sparsis exertis mamillatis, atris; sporidiis..... 1302

Hab. in fructibus Apeibæ, Guyana (Leprieur), Brasilia (Traill).

Subg. *Thamnomyces* Ehrenb. Rhizomorpha Auct. p. p. — Stroma rigidum carbonaceum, subfragile, teres vel filiforme. Perithecia superficialia, laxa. — Plures Xylariæ species e. g. n. 147, 149, 150 etc. in hoc subgenus transeunt.

154. **Xylaria hippotrichoides** (Sow.) Sacc. *Sph. hippotrichoides* Sow. t. 200, *Hypox. loculiferum* Bull., *Ceratonema hippotrich.* Pers., *Rhizomorpha tuberculosa* Ach., *Cryptothamnium usneæforme* Wallr., *Rhizomorpha setiformis* Roth., *Chænocarpus setosus* Reb., *Chænocarpus Simonini* Desm. — Subfasciculata, filiformis, adscendens, nigra, ramosa; peritheciis sparsis, superficialibus, globoso-conicis, obtuse papillatis; ascis.....; sporidiis ovoideis inæquilateralibus, atrofuscis, 16 ≃ 10. 1303

Hab. in udis, cellis vinariis ad fragmenta lignea, telas, suberem etc. putrescentia, in Gallia, Germania, Belgio, Britannia. — Perithecia quandoque brevissime stipitata, initio tomentella. Asci sec. Kickx subclavati; sporidia oblique monosticha.

155. **Xylaria rostrata** (Mont.) Sacc. *Thamnomyces rostratus* Mont. Syll. crypt. n. 701, Cent. II, n. 21, t. 6, f. 2. — Ramosa, ramis teretibus, longissimis, erectis; peritheciis lateralibus, sessilibus, ovoideis, patentibus, ostiolo longo acuto rostratis; sporidiis fuscis, phaseoliformibus, 7–8 ≃ 3–3,5. 1304

Hab. ad truncos prostratos in sylvis Cayennæ (Leprieur), Panuré, Brasilia (Spruce). — Var. *similis* Berk. Dec. of Fungi n. 620*: peritheciis suberostratis. In Brasilia.

156. **Xylaria adnata** (Fuck.) Sacc. *Rhizom. adnata* Fuck. Symb. myc. p. 237, t. IV, fig. 24. — Stromatibus late effusis, primo ligno putrido adnatis, demum (carie consumpto) liberis, $^1/_4$ lin. crassis, atrofuscis, superficie rugulosis, fragilissimis; peritheciis superficialibus, conicis, sparsis; sporidiis (ascis?) 16–20 ≃ 8, aut sporidiolis repletis, aut vacuis, lutescentibus. 1305

Hab. in ligno putrido excavato Fagi sylvaticæ pluribus locis Wiesbaden inter et Rüdesheim (Germania).

157. **Xylaria fragilis** (Roth) Sacc., *Rhizomorpha fragilis* Roth, Cat. I, 231. Fr. Nov. Symb. p. 231. — Stromatibus subrepentibus subcorticalibus, subinde erumpentibus, glabris, cylindraceo-filiformibus, subcompressis, tortuosis vage et repetite ramosis, fusco-nigricantibus, ramulis pallidioribus; peritheciis subsparsis conico-ovatis, papillatis, superficialibus; ascis octosporis; sporidiis curvulis Hypoxylorum (teste Fries l. c.). 1306

Hab. sub cortice arborum variarum, Salicum, Quercuum, Fagorum in tota fere Europa, rarissime fructificans.

158. **Xylaria hispidissima** (Fr.) Sacc. *Rhizomorpha hispidissima* Fr. 1307
Nov. Symb. 129. — Simplicissima, fragillima, usque ad perithecia depresso-globosa papillata strigoso-hispidissima, atra, apice tenuissimo, subulato, concolori; peritheciis subliberis, depresso-globosis, papillatis, glabris; ascis sublinearibus, octosporis; sporidiis monostichis, oblongis, inæquilateralibus, fuligineis.

Hab. in insula Nikobar majori (Didricks.) — Affinis *X. filiformi*, sed fragilitate, peritheciis exogenis etc. distincta.

159. **Xylaria Chamissonis** (Ehrenb.) Sacc. *Thamnomyces Chamissonis* 1308
Ehrenb. F. Chamiss. p. 79, t. XVII, fig. 1. — Stromate rigido peritheciis concolore fusco-nigro, caudicibus repetito-dichotomis teretibus ad 6 poll. altis, basi 2 lin. crassis, sensim gracilioribus ramis apice crebrioribus brevioribus; peritheciis ramulis adnatis, hinc inde 2–4 aggregatis, globosis, papillatis, ostiolo pertuso albo; ascis cylindraceis; sporidiis monostichis, ovoideis.

Hab. in insula brasiliensi S. Catharina in rupibus (Chamisso, et nuperius Spruce).

160. **Xylaria annulata** (Ehrenb.) Sacc. *Thamnomyces annulatus* 1309
Ehrenb. Fungi Cham. p. 82. — Fusco-nigricans, intus concolor, cava, stromate rigido in ramos abeunte, ramis simplicibus teretibus ultra 4 pollices longis, cylindricis, vix $^1/_3$ lin. crassis, sub lente annulatis ubique peritheciis sparsis, globosis, papillatis obsitis.

Hab. in India occidentali (Hornschuch). — Natura cum *X. Chamissonis*, habitu vero cum *X. hippotrichoide* convenit.

161. **Xylaria chordalis** (Fr.) Sacc. *Thamnomyces chordalis* Fr. in 1310
Linnæa 1830, p. 534. — Cæspitosa, stricta, filiformis, simplicissima subfarcta, atra; peritheciis ad latera protuberantibus, sparsis, globoso-ovatis, obtusis; ascis linearibus; sporidiis globulosis.

Hab. in sylvis Cayennensibus (Richard, Dufour). — Fungus 20–24 cent. alt., filo vix crassior, rigidus, levis, sursum longe cuspidatus.

162. **Xylaria fuciformis** (Berk.) Sacc. *Thamnomyces fuciformis* 1311
Berk. Dec. n. 620. — Stipite crassiusculo filiformi, flexuoso, 2 mill. cr.; ramulis rectis 4 mill. longis regulariter vestito; ramulis centro inflatis cavisque; peritheciis.....

Hab. in truncis putridis Panuré, Brasilia (Spruce). — Habitus Fuci cujusdam potius quam fungi.

163. **Xylaria annulipes** (Mont.) Sacc. *Thamnomyces annulipes* Mont. 1312

Syll. n. 702 et in Ann. 2, p. 75, t. 4, f. 4. *Acrosphæria annulipes* Corda Anl. p. 136. — Cæspitosa, simplex, flexuosa, annulata, pollicaris, atra, farcta; perithecio terminali sphærico, extus granulato; ascis oblongis octosporis, subsessilibus; sporidiis distichis, ovoideo-globosis pellucidis.

Hab. ad cortices in Monte Corcovado Brasiliæ (Gaudichaud). — Ex icone Mont. sic dictum perithecium sphæricum granulatum potius ut capitulum, e peritheciis pluribus formatum, habendum mihi videtur

Species mihi ignota.

164. **Xylaria fulvo-lanata** Berk. Lond. Journ. (1842) I. pag. 154, *X. fulvo-velutina* Fr. Novæ Symb. mycol. p. 128. — In insulis Philippinis. — Diagnosim reperire non contigit. 1313

CAMILLEA Fries, Summa V. S. p. 382. Mont. Syll. Crypt. p. 207 (Etym. ab ill. *Camillo Montagne*). — Stroma verticale, terminiforme, carbonaceum, stipitem mentiens, basi sæpius annulo matricali helciiformi cinctum. Perithecia heterogenea, linearia aut phialiformia, membranacea, stromate immersa, in orbem disposita et ad apicem truncatum excavatum marginatumque stromatis spectantia, subostiolata vel modo poro pertusa. Asci cylindrici, gelatinosi, deliquescentes, paraphysibus capillaribus immixti, octospori. Sporidia oblonga aut cymbiformia, continua, typice fusca, appendiculo ut plurimum uromorpho fine altero caudata.

Mens erat hoc memorabile genus nec non forte *Kretschmariam*, *Leveilleam*, *Cordieritem* etc. in subordinem proprium seorsim ponere, sed analogia *Camilleæ* cum *Hypoxylo* nimia est et quoad cetera genera modo citata, eorum cognitio nondum satis plena.

1. **Camillea Leprieurii** Mont. Syll. Crypt. n. 703 et Cent. II, n. 40, t. 10, f. 3, sub Bacillaria et Guy., n. 507, t. 5, f. 1. — Cylindrica, carbonacea, polita, extus intusque atra, basi annulo stromatico ochreata, apice primum cortice orbiculatim rupto sublevatoque velata, dein disco abrupte excavata; margine disci obtuso; peritheciis amplis oblongis erectis, peripheriçis, collo brevissimo aut nullo, ostiolo in areola insculpta papillato; ascis linearibus prælongis 8-sporis; sporidiis cymbiformibus primo seriato-concatenatis, dein liberis, 22–25 ≃ 6–7, caudatis; paraphysibus acicularibus. 1314

Hab. ad cortices ramorum emortuorum in sylvis Guyanæ (Leprieur), Caripi Brasiliæ (Spruce).

2. **Camillea Bacillum** Mont. Syll. Crypt. n. 704. Cent. I. n. 32, sub Thamnomyce; Cuba, p. 343, sub Hypoxylo, et Guy., n. 509, t. 5, f. 3. — Simplex; stipite cylindrico, basi annulato-ochreato, sursum in clavulam teretem æqualem obtusam, apice punctulatam abeunte; peritheciis paucis oblongo-attenuatis; collo subtilissimo ostioloque impresso instructis; sporidiis reniformibus, fuscis. 1315

Hab. in cortice corrupto ad S. Marcos Cubæ (Auber), in Antillis (Mougeot), Guyana (Mont.).

3. **Camillea Cyclops** Mont. Syll. Crypt. n. 705 et Cent. II, n. 41, t. 10, f. 4, et Guy., n. 510, t. 5, f. 2. — Stroma e ligno erumpens, carbonaceum, cylindricum, crassum, breviusculum, durissimum atro-nitens apice obtuso rotundato cupuliformi-excavatum; peritheciis immersis inordinatis erectis elongatis pressione mutua difformibus, ostiolis in disco parvo crasse obtuseque marginato vix prominulis; ascis cylindraceo-clavatis, octosporiis; sporidiis monostichis, oblongo-ellipsoideis, fuscis. 1316

Hab. ad ligna emortua prope Cayennam (Leprieur).

4. **Camillea Labellum** Mont. Syll. Crypt. n. 706 et Guy., mss., n. 511, t. 5, f. 5. — Erumpens, velo crasso verrucoso primitus involuta, dein libera; stromate tereti brevi crasso apice cupulari-aperto, margine tenuissime granulato; peritheciis erectis oblongis in collum attenuatis et ostiolo prominulo papillæformi instructis; sporidiis fusoideo-navicularibus, 30 μ. longis, inæquilateris, fuscis. 1317

Hab. in truncis emortuis sub cortice nascens, Cayenna (Leprieur).

5. **Camillea mucronata** Mont. Syll. Crypt. n. 707 et Guy., mss., n. 508, t. 5, f. 4. — Stromate cylindraceo-conico, limitiformi, $6 \simeq 3$ mill. carbonaceo atro polito longitrosum striatulo, basi nudo, apice excavato crasse marginato, centro disci valide mamillato-mucronato; peritheciis inordinatis confertis elongatis circa basin mucronis discum ostiolo petentibus; ascis tubulosis 100 μ. longis; sporidiis ellipsoideo-oblongis, 2-guttatis, $10 \simeq 3{,}5\text{-}4{,}5$. 1318

Hab. ad ligna emortua nigrefacta in Guyana (Leprieur). — In disco stromatis adsunt perithecia conica spermatiis minimis fæta; an st. spermogonicus *Camillecæ?*

6. **Camillea surinamensis** Berk. et Curt. Exot. Fungi Schw. p. 285. — Subcongesta, opaca, non polita, brevis, apice obtuso, plano, leviter umbilicato; peritheciis..... 1319

Hab. in cortice putri, Surinam, Amer. merid. — Erumpens, ut species congeneres, gregaria, 4 mill. alta, $2\frac{1}{2}$ cr. Differt a *C. Sa-*

græana defectu papillarum apicalium et a *C. Cyclope* quia opaca et vix umbilicata.

7. **Camillea Sagræana** (Mont.) B. et C. Exot. Fungi p. 285. *Hypox.* (Pulvinatæ) *sagræanum*, Mont. Cub. p. 341, tab. 12, fig. 4. Berk. Cub. Fungi n. 821. *Phylacia Sagræana* Mont. Syll. Crypt. n. 921. — Cæspitoso-connata, obovata, nigra, nitida, fragilis, a basi substipitata, stipitibus stromate atro conjunctis, in capitulum ovoideum læve dilatata; peritheciis erectis linearibus demersis, fuscis compresso-angulatis, ostiolis latentibus. 1320

Hab. in ramis dejectis in Cuba (Ramon de la Sagra) et Nicaragua pr. Panama (Berk). — Sporidia 10 μ. longa, utrinque obtuse rotundata, inæquilateralia, fuliginea (Curr. Comp. Sph. n. 23, fig. 24).

PORONIA Willd. Flor. Berol. Prodr. p. 400 (Etym. *poros*, quia discus punctato-porosus). — Stroma carnoso-suberosum, primo claviforme, deinde cupuliforme, stipitatum v. subsessile, albicans v. nigricans. Perithecia stromatis parti superiori disciformi tantum immersa, carbonacea, atra. Asci cylindracei octospori. Sporidia ellipsoidea, fusca, muco hyalino involuta. — Hymenium conidiferum stroma recens vestiens. Conidia sphæroidea, minima. — Fungus pezizoideus, fimicola.

Nonnullæ species jam *Poroniæ* relatæ (e. g. *P. candida*, *P. Pocula* etc). merito ad *Ensliniam* adductæ sunt, quod genus, hic Sphæriaceis, hinc Hypocreaceis et illinc tandem Discomycetibus affine, in Appendice cum nonnullis aliis ancipitibus describam.

1. **Poronia punctata** (Linn.) Fr. Summ. Veg. Scand. p. 382, Nits. Pyr. Germ. p. 16, *Peziza punctata* Linn. Fl. Suec. p. 458, *Sph. Poronia* Pers. Syn. p. 15, *Sph. truncata* Bolt. Fung. III, t. 127, *Lecidea bovina* Vis. Spec. Dalm. p. 21. — Stromate erecto, simplici, primo clavato, mox aperto, cupuliformi, denique deplanato in stipitem plus minus longum, tomentosum attenuato, hypocrateriformi, extus nigricante, disco albo, peritheciorum ostiolis prominulis atro-punctato; hymenio conidifero stroma recens vestiens, ex cinereo fuscescente; conidiis globosis, minimis; ascis cylindraceis breviter pedicellatis, octosporis, 160 ≃ 16–18; pseudoparaphysibus longissimis; sporidiis monostichis, ovatis, rectis, nigricantibus, muco hyalino involutis, 18–26 ≃ 10–14. 1321

Hab. in fimo equino, vaccino, asinino, elephantino in Suecia, Germania, Britannia, Gallia, Belgio, Sibiria, Dalmatia.

Fennia, Natal. — Sec. Hans F. fim. dan. *Peziza coriacea* Bull. est forma monstrosa *Poroniæ punctatæ*.

2. **Poronia Œdipus** Mont. Syll. Plant. Crypt. p. 209, Nits. Pyr. Germ. p. 20, *Sph. incrassata* Jungh., *Por. Œdipus* β. *cladonioides* Ces. in Comm. critt. I, 70, t. IV, f. IV. — Stromate erecto, extus nigricante, simplici v. ramoso, stipite glabrescente, longiusculo, basim versus clavæformi-incrassato, apice in cupulam, tota superficie nigricantem, peritheciorum ostiolis prominulis papillatam, primo excavatam, deinde deplanatam dilatato; conidiis subglobosis, minimis; ascis subcylindricis, brevissime pedicellatis, octosporis, 120 ≃ 24; pseudoparaphysibus, longissimis, crasse filiformibus, septatis; sporidiis monostichis v. pro parte distichis, ovatis, rectis, nigricantibus, strato mucoso, hyalino, crasso cinctis, 28–30 ≃ 16. 1322

Hab. in fimo equino et vaccino in Italia boreali, Cayenna, Cuba, Java, Borneo, Amer. bor., Australia.

3. **Poronia pileiformis** (Berk.) Fr. Nov. Symb. 129, *Sph. pileiformis* Berk. Lond. Journ. Bot. 1842, I, 155, t. VIII, f. 6, Curr. Comp. Sph. n. 3, t. 45, f. 4. — Stromate ramoso, leviusculo, ramis in cupulas pileiformes terminatis; ascis cylindraceis breve stipitatis, octosporis; sporidiis oblique monostichis, ovoideis utrinque acutiusculis, guttulatis, fuligineis, 7–8 μ. longis. 1323

Hab. in insulis Philippinis. — Sec. Cesat., Myc. Born. p. 14, hæc non differt a forma cladonioide *Poroniæ Œdipodis*. E contra Tul. Carp. II, 29, novi generis typum censet, in nonnullis notis *Xylariæ pedunculatæ* analogum. Certe *Poroniæ Œdipodis* sporidia quadruplo majora sunt.

4. **Poronia Heliscus** Mont. Syll. Crypt. n. 709, Curr. Comp. Sphær. n. 12, f. 13, Cent. II, n. 44, t. 10, f. 5, sub *Hypoxylo*. — Cæspitosa, minima, gomphodes, suberosa, leproso-scabriuscula, atra, intus alba, disco placentæformi, peritheciis globosis immersis supra colliculoso, ostiolis prominulis umbonatis; sporidiis (ut videtur) monostichis, naviculari-pyriformibus, 7,5–10 μ. long., atro-fuligineis. 1324

Hab. ad truncos emortuos, Cayenna (Leprieur). — Cl. Montagne l. c. sporidia bilocularia describit, sed continua pingit cl. Currey sec. specimina originalia.

5. **Poronia macrorrhiza** Speg. Fungi Argent. Pug. III, n. 43 et IV, n. 140, — Sclerotio horizontali, coriaceo-tenaci, plus v. minus profunde delitescente, sæpius subrhizomorphoideo, crasso, elongato, 2–5 cent. long., 2–4 mill. cr., intus albo, carnoso-coriaceo, compacto, extus atro, levi v. ruguloso; ramulis solitariis, vel 2–5 gregariis 1325

e sclerotio exsurgentibus, gracilibus, atris, coriaceo-tenacibus, 1-3 cent. long., 0,5-1,5 mill. cr., longiusculis, apice abrupte in stromata perithecigera dilatato-capitatis; stromatibus cupulato-patellaribus, applanatis, v. (in juventute) subconvexis, superne albis, atque ostiolorum apicibus, laxe scabre atro-punctatis, 2-6 mill. d., margine integro, rotundato, crassiusculo, inferne sordide fusco-rufescentibus; peritheciis carne alba stromatis profundiuscule immersis, atris, globosis v. subellipticis sursum in ostiolum longiusculum superficiem attingens ac prominulum desinentibus, $^1/_3$-$^1/_2$ mill. diam., ascis cylindraceis, abrupte breve stipitatis, 150-160 ≃ 15-25, paraphysatis, octosporis; sporidiis monostichis v. subdistichis, ellipsoideis v. subrhomboideis, 28 ≃ 13-14, fulvo-fuligineis, 1-guttatis, muco hyalino obductis. In juventute stromata pruinula albo-carnea, conidiifera obtecta, ex hyphis repentibus crebre ramosis ac toruloso-septatis, hinc inde inordinate in superficiem ramulorum papillosis, ac conidia globosa, hyalina, 3-4,5 μ. diam., gerentibus composita.

Hab. in fimo equino vetusto in ollis plantarum en el patio del señor Coni, Buenos Aires, Argent. Amer. austr. — *Por. Œdipodi* valde affinis.

6. **Poronia scutellata** Fr. S. V. Scand. p. 382, *Lichen-Agaricus scutatus albus* Mich. Nov. pl. gen. p. 105, t. 54, II, f. 3. 1326

Hab. in agris prope Telamonem Etruriæ et in Scandinavia. — Sessilis, tota alba, disciformis, ostiolis majusculis nigris punctata.

7. **?Poronia cupularis** (Fr.) Rabh. Deutsch. Crypt. Fl. I, 824. *Sph. cupularis* Fr. Linnæa 1830, p. p. 530, *Sph. pallida* Willd. — Stromate carnoso, cupulari, marginato, luteo, extus villoso, disco depresso; peritheciis peripheriis tecto. 1327

Hab. ad ligna putrida agri berol. (Willdenow.). — Sec. Nits. Pyr. Germ. p. 21 ad Pyrenomycetes non pertinet.

USTULINA Tul. Sel. Fung. Carp. II, p. 23 (Etym. *ustulatus*, ob stroma veluti deustum). — Stroma superficiale, subeffusum, crassissimum, determinatum, primo suberinum, hymenio conidifero, concreto undique vestitum ejusque conidiis pulverulentum, albido-cinerascens, deinde rigidum, carbonaceum, atrum, nudum, intus denique sæpius subvacuum. Perithecia immersa, magna, cornea, ostiolis papillæformibus. Asci pedicellati, octospori, paraphysibus obvallati. Sporidia ovoideo-fusiformia, continua, fuliginea. — Genus ægre

ab *Hypoxylo* distinguendum et re vera *Hypoxyli* plures species æquo fere jure *Ustulinæ* adscribi possent.

1. **Ustulina vulgaris** Tul. Sel. Fung. Carp. II, p. 23, t. III, f. 1–6, 1328
Sph. maxima Web. Spic. Gott. n. 301, *Sph. deusta* Hoffm. Veg. Crypt. I, p. 3, t. I, f. 2, *Sph. versipellis* Tode, *Hypoxylon ustulatum* Bull. — Stromate superficiali, subeffuso, repando-pulvinato, maximo, crasso, undulato-tumuloso, tandem aterrimo, carbonaceo, fragili, intus denique excavato; peritheciis magnis, ovatis, dense stipatis, monostichis, peripheriçis, ostiolis solum punctiformibus prominentibus; ascis anguste cylindricis, pedicellatis, octosporis, 250 ≃ 8–10 p. sporif.; paraphysibus tenuissimis, simplicibus, unicellularibus, mox diffluentibus; sporidiis oblique monostichis, fusiformibus, inæquilateralibus, immo curvulis, nigricantibus, 32–40 ≃ 8–10; hymenio conidifero stroma initio vestiente, albido-cinerascente: conidiis ovoideis, minutis, subhyalinis breve stipitatis.

Hab. ad caudices carie vexatos Fagi, rarius Tiliæ, Carpini etc. in tota Europa, Cuba, Guyana, Venezuela, Juan Fernandez, Amer. bor., Ceylon.

2. **Ustulina brasiliensis** Speg. Fungi Arg. Pug. IV, n. 136. — Stro- 1329
matibus repando-pulvinatis, magnis, 20–40 mill. diam., exertis, crassis, 5–8 mill. crass., inferne applanatis, late laxeque adnatis, ambitu liberis, irregulariter repando-sinuosis, margine crasso, obtusissimo, disco parce undulato-gibboso, cortice crassiusculo, fragili, atro, opaco, inferne irregulariter ruguloso-scruposo, superne plano sed densiuscule papilloso-aspero; carne infera, cortici basali adnata, tenui, alba, fibrosula, mox evanida; peritheciis densissime constipatis, verticalibus, cylindricis, e mutua pressione angulosis, 2 mill. long., 0,3–04, mill. crass., tenui-pelliculoso-membranaceis, subcoriaceis, griseo-plumbeis, basi rotundatis, vertice in ostiolum carbonaceum, corticem perforans exertumque, obtusulum productis; ascis cylindraceis sursum truncato-rotundatis, crasse tunicatis, deorsum breviter attenuato-stipitatis, 250–280 ≃ 12, octosporis, paraphysibus filiformibus obvallatis; sporidiis naviculari-fusoideis, utrinque attenuato-rotundatis, primo grosse 2-guttulatis, 40–45 ≃ 10, opace fuligineis.

Hab. in truncis dejectis putrescentibus prope Freguesia de Ribeira, Apiahy, Brasilia meridionali (Rocha et J. Puiggari).

3. **Ustulina macrosperma** (Mont.) Sacc. *Hypox. macrospermum* Mont. 1330
Syll. Crypt. n. 724, Cent. II, n. 39, in Ann., l. c., p. 351, t. 10, f. 6. — Hemisphærico-subglobosa, depressa, crustaceo-laccata, ni-

gricans, intus lurida; peritheciis amplis erectis oblongis, ostiolis exertis conico-truncatis pertusis; sporidiis cymbiformibus, maximis, 60 μ. longis, opacis.

Hab. ad lignum putridum secus ripam amnis Conana, Guyana (LEPRIEUR).

4. **Ustulina zonata** (Lév.) Sacc. *Sph.* (globosa) *zonata* Lév. Ann. Sc. nat.. 3, 1845, p. 48, — Effusa, undula, zonata e fusco nigricans, peritheciis oblongis stromate nigro carbonaceo immersis, ostiolis minimis punctiformibus nigris; ascis paraphysatis, cylindraceis, octosporis; sporidiis ovoideo-oblongis, continuis, monostichis. 1331

Hab. Java, ad palmas. (ZIPPEL). — Affinis *Ustul. vulgari.*

BOLINIA Nits. ut subg. Pyr. Germ. p. 26 (Etym. *bolinos,* glebosus ob stromatis formam). — Stroma superficiale, effusum. Perithecia stromate alte immersa, collo elongato ostioloque umbilicato instructa. Asci cylindracei, octospori, paraphysati. Sporidia ovoidea, continua, fuliginea.

1. **Bolinia Tubulina** (Alb. et Schw.) Sacc. *H. Tubulina* Alb. et Schw., Fr. Summ. Veg. Scand. p. 383, Nits. Pyr. Germ. p. 26, *Sph. Tubulina* Alb. et Schw. Consp. Nisk. p. 6, t. IV, f. 4. — Stromate effuso, determinato, oblongo v. ovali, ligno duriori, tandem superficie nigricanti adnato, omnino superficiali, ligno putredine molliori vero basi plus minus immerso, crasso, superficie, peritheciis omnino extantibus, planiusculo, v. tumuloso-undulato, primo intus extusque ex terreo ferrugineo, deinde nigricante fragili, margine repando; peritheciis maximis, monostichis, stromate omnino immersis, densissime stipatis, ovatis v. mutua pressione angulatis, subprismaticis, in collum longum sensim attenuatis, ostiolis haud prominentibus, pertusis ac stromatis superficiem porosam efficientibus instructis; ascis cylindricis longe pedicellatis, octosporis, 36–45 ≃ 5 p. sporif.; sporidiis oblique monostichis, exiguis, ovatis, utrinque obtusissimis, rotundatis, vel rarius ovoideis, rectis, nigricantibus, 6–7 ≃ 3–4. 1332

Hab. in truncis putridis Abietis, rarius Jugandis et Alni in Lusatia (Germ.), Suecia et America boreali, raro.

HYPOXYLON Bull. Champ. de Fr. I, p. 168 (1791), p. p. — Stroma nunc subsphæroideum vel hemisphæricum, nunc plus minus effusum, crustiforme, primitus e conidiis jam primo nudis, sphæroideis vel ovoideis, varie coloratis, minimis pulverulentum, dein nudum,

lignoso-suberosum, extus intusque fusco-nigricans vel rubiginosum. Perithecia periphærica, monosticha, rarius polysticha, concentrica, stromati plus minus immersa, forma varia. Asci pedicellati, cylindracei, octospori, paraphysati. Sporidia continua, ovoidea vel oblonga, fuliginea. — Pyrenomycetes majores vel mediocres, sæpius lignicolæ vel corticolæ, ubique terrarum copiosi.

I. *Eu-hypoxylon:* stromate globoso, pulvinato v. subeffuso, superficiali.

A) Stroma extus rubescens v. ochraceum v. saltem non nigrum v. pruina pallidiore obductum.

1. **Hypoxylon coccineum** Bull. Champ. Fr. p. 174, tab. 345, f. 2 (1791), Nits. Pyr. p. 28. *Sph. fragiformis* Pers. Syn. p. 9, nec Hoffm. *Lycop. pisiforme* Sow., *Sph. rubra* Willd. — Stromate per peridermium erumpente dein superficiali, subgloboso, nunc fusco-violaceo v. cervino, hymenio conidifero pulveraceo concolori, cinereo v. æruginoso primum vestito, nunc contra lateritio, maturo vero semper rubiginoso, intus atro-fuligineo, mox solitario, mox connato, subcæspitoso; conidiis (*Institale acariforme* Fr. et *Anthina flavo-virens* Fr.) obovatis, minimis; stromatibus rite evolutis, maturis, minute mammillosis, fragiformibus; peritheciis minutis, ovatis periphericis, monostichis, confertis, nonnihil extantibus; ascis cylindricis, longissime pedicellatis, octosporis, paraphysibus longissimis, filiformibus, simplicibus, stipatis, 70–88 ≃ 5–7 p. sporif.; sporidiis oblique monostichis, obovatis, inæquilateralibus, nigricantibus, 10–12 ≃ 4–5, sæpe 2-guttulatis. 1333

Hab. in ramis Fagi, rarius Quercus, Pruni, Salicis, Carpini, Ostryæ, Betulæ, Coryli et (teste Berk.) etiam in Ustulina parasiticum in tota ferme Europa, Amer. bor., Cuba, Tasmania, Amer. arctica, India or.

2. **Hypoxylon Scleroderma** Mont. Syll. Crypt. n. 716. Cent. II, n. 37, t. 10, f. 1. — Carnoso-suberosum, obpyriforme globosumve, spurie stipitatum, basi attenuatum sessile, intus determinate cavum extusque læve, rubro-sanguineum; peritheciis heteromorphis oblongis globosisve, polystichis, cellulæformibus, in strato concolori peripherico (lineam crasso) nidulantibus, ostiolis demum prominulis confertis nigris perforatis, ascis breviter clavatis, 30 ≃ 4–5 p. sporif.; sporidiis octonis oblongis, 5 ≃ 2–2,5. 1334

Hab. ad lignum emortuum in sylvis Cayennæ (Leprieur).

3. **Hypoxylon pulchellum** Sacc. Fungi Ven. Ser. IV. p. 21 et F. ital. 1335

t. 147. — Stromatibus typice globoso-hemisphæricis, parvis, $1^1/_2$-2 mill. diam., v. quandoque effuso-pulvinatis, ambitu elongato variove, initio rubiginosis extusque velutino conidiophoris, tandem cupreo-fuscis, intus cinnamomeis; conidiis minimis ovoideis, $3 \simeq 2$, hyalinis, hyphis fasciculatis, pallide fuligineis, filiformibus, $60 \simeq 2$, suffultis; peritheciis in stromatis periphæria distiche v. subtristiche crebre stipatis, exiguis, subrotundis, atris in ostiolum acute conoideum prominulum desinentibus; ascis cylindraceis, $60 \simeq 5$, p. sporif., pseudoparaphysibus guttulatis obvallatis, 8sporis; sporidiis oblique monostichis, naviculari-fusoideis, $8 \simeq 4$, utrinque acutiusculis, plerumque 2-guttulatis, fuligineis.

Hab. in ramis semidecorticatis putrescentibus Fagi sylvaticæ, in sylva Cansiglio, Treviso, Italiæ bor. — Stromatibus parvis typice semiglobosis, peritheciis minutis subtristichis et præsertim ostiolis acute papillatis prominulis a cæteris speciebus mihi notis distinctum.

4. **Hypoxylon hypomiltum** Mont. Syll. Crypt. n. 733, Berk. Fungi of Ceylon n. 1072. — Convexo-applanatum, orbiculare, effuso-confluens, minutissime granulosum, atro-purpureum, lignum circum circa rubigine tingens, intus manifeste rubiginosum, peritheciis colliculosum prominulis monostichis ovato-oblongis, intus nigris pulvere rubiginoso interspersis, collabentibus, ostiolis punctiformibus vix conspicuis; sporidiis 8,5-10 $\simeq$ 5. 1336

Hab. ad lignum putridum. Cayenna (Leprieur), ad ramos putres, Central province, Ceylon (Berk.).

5. **Hypoxylon argillaceum** (Pers.) Berk. Outl. 387. Nits. Pyr. Germ. p. 29, *Sph. argillacea* Pers. Syn. p. 10, nec Friesii quæ ad *H. multiforme* spectat. — Stromate peridermio erumpente, deinde superficiali, subgloboso, discreto, rarius connato, argillaceo, intus nigricante, maturo peritheciis monostichis, raro irregulariter polystichis, ovatis, exiguis, confertis, prominulis minute mammilloso, fragiformi; hymenio conidifero ex albido cervino v. pallide argillaceo; conidiis exiguis, ovatis, hyalinis; sterigmatibus longis, parce ramosis, septatis; ascis cylindricis, longissime ac tenuiter pedicellatis, octosporis, paraphysibus tenuissimis, simplicibus longe superatis, $140 \simeq 16$ p. sporif.; sporidiis monostichis, late ovatis, obtusissimis, inæquilateralibus, nigricantibus, strato mucoso, hyalino, tenui cinctis, 22-24 $\simeq$ 10-12. 1337

Hab. in truncis præcipue Fraxini; rarius Fagi et Betulæ in Germania, Britannia, Belgio, Italia, St. Unit., Canada. —

Var. *abyssinicum*, Pass. F. Abiss. p. 186, differt sporidiis minoribus. In corticibus Keren, Abyss.

6. **Hypoxylon Howeianum** Peck 24 Rep. p. 98. — Globosum sessile, 1338
crusta rubra ostiolis minutis nigris dense punctulata tectum, dein lutescens, vel atrum, 6–12 mill. diam., peritheciis, densis, ovatis, nigris, nitidis, stromate denso æneo-nigricante, lucido non v. vere obsolete zonato, radiato-fibroso.

Hab. in Amer. bor. Center, in ramis dejectis arborum frondosarum, novembri. — Affine *H. coccineo*, sed majus, punctatum, leve, sporidiis minoribus.

7. **Hypoxylon palumbinum** Quel. Champ. Jura 491, t. IV, f. 6. — Glo- 1339
bulosum v. hemisphæricum, 2–5 mill. diam., sæpe confluens, colore palumbino, pruinosum, dein granulosum, griseo-cervinum, intus incarnatum denique griseolum; peritheciis globulosis, minutis, periphericis, nigris, ostiolis punctiformibus, albis; ascis.....; sporidiis amygdaloideis, nucleatis, olivaceis, 12 μ. longis.

Hab. in ramis emortuis Fraxini in Vogesis. — Cl. Quelet ut var. *H. argillacei* censet, sed in hoc sporidia subduplo longiora sunt.

8. **Hypoxylon distillatum** B. et Br. Fung. of Ceylon. n. 1062. — Ex- 1340
tus pulverulentum coffeicolor, basi dilatatum, peritheciis prominulis dein papillosum, apice planum, ostiolo depresso, intus nigrum.

Hab. in ligno putri, Ceylon. — Subaffine *Hyp. fusco*.

9. **Hypoxylon sclerophæum** B. et C. Austral. Fungi n. 234. — Expan- 1341
sum, pulvinatum, crassum, superficie rubiginosa subtiliter e peritheciis prominulis rugosa, contextu duro nigro; peritheciis oblongis.

Hab. in truncis, Adelaide Australiæ et Surinam. — Affine *H. multiformi*.

10. **Hypoxylon lycogaloides** B. et Br. Fungi of Ceyl. n. 1058. — Sub- 1342
globosum, luteum, e mycelio contexto lutescente oriundum; peritheciis nigris, ostiolis prominulis, carne alba; sporidiis ellipticis verruculosis.

Hab. in corticibus, Central Province, Ceylon. — Stroma 8 mill. diam. *Xylariæ compunctæ* subaffinis, etsi multo minor. Mycelium *Geasterem mirabilem* in memoriam revocat.

11. **Hypoyxlon Blakeii** B. et C. North Am. Fungi n. 842. — Erum- 1343
pens; peritheciis minoribus congestis ferrugineis; ostiolo papillæformi prominulo; ascis linearibus; sporidiis oblongis, 20 μ. long. 1–2–nucleatis.

Hab. in Salicibus, Maine Americæ borealis.

12. **Hypoxylon rutilum** Tul. Sel. Fung. Carp. II. p. 38, Nits. Pyr. Germ. p. 32. — Stromate in ramis corticatis erumpente mox libero, superficiali, pulvinato; plerumque forma irregulari, sæpe vertice depresso, discreto, connato v. confluente in ligno nudato contra plus minus effuso; hymenio conidifero cervino; conidiis ovatis, minutissimis, in sterigmatibus parce ramosis fasciculatim acrogenis; stromatibus junioribus argillaceis, cervinis v. læte rubris, maturis fusco- v. atro-rubris; peritheciis monostichis v. pro parte irregulariter polystichis, exiguis, subglobosis, densissime stipatis, nonnihil prominulis minutissime mammillosis: ascis cylindricis, longissime ac tenuiter pedicellatis, octosporis, paraphysibus prælongis, filiformibus, stipatis, 56–80- plerumque 70 ≃ 5–8 p. sporif.; sporidiis oblique v. recte monostichis, ovatis, obtusis, inæquilateralibus, nigricantibus, 8 ≃ 4–5. 1344

Hab. in ligno et cortice Fagi pr. Münster, Cappenberg, Nienberge, Œstrich Germaniæ, Rockhampton Australiæ. — *Hypoxyli coccinei* æmulum.

13. **Hxpoxylon Laschii** Nits. Pyr. Germ. p. 36. — Stromate pulvinato, deplanato, basi orbiculari v. late elliptica, per peridermium fissum erumpente ejusque laciniis cincto, superficie ferrugineo-rubro, intus læte rubro, peritheciis pro ratione majusculis, subdistichis, peripheriçis, vertice rotundatis prominulis mammilloso, plerumque discreto, rarissime connato; ascis longissime pedicellatis, cylindricis, octosporis, paraphysibus obvallatis, 80 ≃ 7 p. sporif.; sporidiis monostichis, ovatis, subrectis v. plus minus inæquilateralibus, nigricantibus, 10–12 ≃ 5–6. 1345

Hab. in ramis crassioribus Populi, Driesen Germaniæ (Lasch). — Inter *H. rutilum* et *H. multiforme* medium.

14. **Hypoxylon suborbiculare** Peck 30 Rep. on the St. Mus. New York, pag. 62, nec Curr. — Stromate tenui, applanato, erumpente, suborbiculari; peridermio erupto cincto e libro oriundo, purpureo-fusco dein nigro, superficie inæquali subareolato-rimosa; peritheciis monostichis subglobosis, ostiolis impressis perforatis, subinde albidis; sporidiis inæqualiter ellipsoideis, 10–14 μ. longis, fuligineis. 1346

Hab. in cortice Aceris saccharini, Sandlake Amer. bor. — *Hypoxylo Laschii* Nits. affine et nonnullis notis ad *Nummularias* nutans. *Sph. suborbicularem* Curr. videas inter Nummularias.

15. **Hypoxylon luridum** Nits. Pyr. Germ. p. 31, Sacc. Fungi it. t. 568. — Stromate erumpente, deinde libero, superficiali, raro discreto, hemisphærico v. subgloboso, plerumque connato v. in crustam cras- 1347

sam, tumulosam subeffuso, ex ochraceo sordide umbrino, peritheciis irregulariter polystichis, majusculis, globosis, obtusissimis, vertice pertusis, prominentibus rugoso; ascis cylindricis, longe pedicellatis, octosporis, paraphysibus longissimis, filiformibus obvallatis, 90 ≃ 6–7 p. sporif.; sporidiis monostichis, late ovatis, obtusissimis, inæquilateralibus v. subrectis, nigricantibus, muco hyalino tenui involutis, 12 ≃ 5–6.

Hab. in ramis exsiccatis Coryli et Carpini, Münster, German., Treviso, Italia bor. — *Hypox. leucostigmati* affine.

Var. *minus:* acervulis constanter minoribus; ascis p. sporif. 70–80 ≃ 7; sporidiis octonis oblique monostichis ovoideis inæquilateralibus, 9–11 ≃ 5–6, 2-guttulatis, fuligineis, quandoque (an ex ascis secedentibus?) muco hyalino parce involutis. — In ramis corticatis Populi nigræ, Vittorio (Italia boreali).

16. **Hypoxylon Bagnisii** Sacc. Mich. I, p. 24, Fungi ital. t. 148. — 1348
Acervulis subglobosis, superficialibus, basi coarctatis, superne complanato-convexis, minutis, $2^1/_2$–$2^3/_4$ mill. diam., atrorufis, intus nigrescentibus, stromate parco, ideoque a peritheciis fere omnino constantibus; peritheciis in quoque acervulo paucis (7–10), majusculis, $^1/_2$–$^3/_4$ mill. diam., verticaliter ovoideis, vertice conoideis papillatisque; ascis cylindricis fasciculatis, 90 ≃ $4^1/_2$, p. sporif., 70 longa, stipitatis, paraphysatis, 8sporis; sporidiis monostichis, oblongo-coffeiformibus, 9–10 ≃ 4, 2-guttatis, fuligineis.

Hab. in ramis corticatis fagineis, S. Onofrio prope Romam, socia *Quaternaria Persoonii* Tul. (C. Bagnis). — Ab *H. Botry* Nits. peritheciis papillatis, ab *H. cohærente* (Pers.) Fr., acervulis minoribus, atrorufis, qasi coarctatis, sporidiis minoribus etc. differt.

17. **Hypoxylon Botrys** Nits. Pyr. Germ. p. 34, *Sph. botryosa* Fuck. 1349
nec Fr. — Stromate per peridermium erumpente, deinde libero, superficiali, forma varia, nunc maculæformi, pulvinato v. fere globoso, connato v. confluente, rarius discreto, nunc plus minus effuso, crustiformi, crasso, tumuloso, peritheciis majusculis, globosis, maxime protuberantibus, sæpe tamquam coacervatim conglomeratis, irregulariter monostichis botryoso, ex aureo furrugineo-rubro, hymenio conidifero concolore, pulverulento tecto, tandem glabro, aterrimo; ascis longe pedicellatis, cylindricis, octosporis, paraphysibus filiformibus stipatis, 76–80 ≃ 6–7 p. sporif.; sporidiis monostichis, ovatis, obtusissimis, inæquilateralibus v. fere rectis, nigricantibus 12–14 ≃ $5^1/_2$–7.

Hab. in ramis salicinis, quercinis et acerinis, Schwe-

rin, Münster, Œstrich (Germania). — *Sph. botryosa* Fr. S. M. II, 342, Curr. Linn. Trans. XXII, t. 46. f. 46: ascis clavatis corpusculis innumeris hyalinis farctis, adhuc mihi incerta manet. Hæc lecta est in Vogesis, in Britannia et in ramis decorticatis Mori, Malaga New Jersey Americæ borealis.

18. **Hypoxylon commutatum** Nits. Pyr. Germ. p. 33, Sacc. Fungi it. t. 567. — Stromate peridermio erumpente, deinde libero, superficiali, plerumque pulvinato, depresso, rarius hemisphærico v. fere globoso, aggregato, discreto v. connato, superficie ex argillaceo rubro-ferrugineo, intus nigricante, peritheciis majusculis, globosis, laxe ac subdistiche stipatis, peripheriçis, prominulis, rotundatis mammilloso; ascis longissime ac tenuiter pedicellatis cylindricis, octosporis, paraphysibus, filiformibus obvallatis, 88–92 ≃ 7 p. sporif.; sporidiis monostichis, ovatis, obtusis, inæquilateralibus, fuscis, 10–12 ≃ 6. 1350

Hab. in ramis corticatis Carpini Betuli, prope Œstrich, Rhenogovia et prope Treviso, Italia boreali.

19. **Hypoxylon sclerotioideum** B. et C. Exot. Fungi Schw. p. 286. — Pulvinatum, læve, vinosum; intus concolor; peritheciis oblongis stipatis, ostiolis obsoletis. 1351

Hab. in cortice fibroso, Surinam (Amer. austr.). — Pulvinatum, 4 mill. lat., 2 mill. cr.

20. **Hypoxylon solidum** B. et C. Exot. fungi Schwein. p. 286. — Orbiculare, lobatum, irregulare, rubiginosum, ex ostiolis minute punctato-papillatum; intus subconcolor; margine libero; peritheciis oblongis minutis, gelatina rubida farctis (immaturis). 1352

Hab. in cortice muscoso, Surinam (America austr.). — Stroma 20–25 mill. cr. intus primitus spongiosum.

21. **Hypoxylon gilvum** (Jungh.) Sacc. *Sph. gilva* Jungh. Præm. flor. Jav. p. 20. — Globosum, atrum, helvolum, intus concolor, peritheciis ovatis magnis peripheriçis, dein papilloso-prominulis. 1353

Hab. in ramis dejectis, in monte Merapi Javæ. — *Hypox. coccineo* proximum, semine sinapeos paullo majus, globosum, basi affixum, sordide gilvum subochraceum, primum læve, dein ostiolis prominentibus papillosum.

22. **Hypoxylon decorticatum** (Schw.) Berk. North Amer. Fungi in Grevill., *Sph.* (Pulvinatæ) *decorticata* Schw. Syn. Amer. bor. n. 1179. — Subpulvinatum, applanatum præsertim in ligno decorticato, rarius in cortice; externa superficie griseo-rubiginosa, tuberculis rugosis, sphærulæformibus dense tecta, ad instar ostiolorum, et pro- 1354

inde veluti exasperata nigris granulis, exterioris corticis ceterum experti; peritheciis periphæricis, pluribus seriebus in stromate rubiginoso-fuligineo immersis, ovato-globosis; pulvinulis subrotundis aut difformibus, 1/4 uncialibus, sæpe confluentibus.

Hab. ad ligna et in cortice, in Nova Anglia (Dr. Torrey), Bethlehem (Schw.), Carol. inf. (Berk.). — *H. rubiginoso* subaffine.

23. **Hypoxylon enteromelum** (Schw.) Berk. North Amer. Fungi p. 161, 1355
Sph. enteromela Schw. New Amer. Sphær. p. 10 et in Linnæa IV, Litt. p. 46. — Ovatum, oblongum, pulvinatum subconfluens, rubiginoso-brunneum, e peritheciis vix prominulis granulatum intus nigricans; peritheciis immersis minutis subglobosis, ostiolis obsoletis.

Hab. in cortice rimoso Fraxini, seriatim erumpens prope Bethlehem, in Fago Pensylvaniæ et Novæ Scotiæ, Amer. boreali. — Affine *H. coccineo*, 7–8 mill. diam.

24. **Hypoxylon vividum** B. et Br. Fungi of Ceylon n. 1070. — Pulvi- 1356
natum, extus aurantiaco-ferrugineum, pulverulentum, intus nigrum; peritheciis oblongis; ostiolis abditis; sporidiis 18 ≃ 8–9.

Hab. in ligno putri in Ceylon. — Sæpius confluens et irregulare, subinde per aliquot centimetra effusum.

22. **Hypoxylon ceramichroum** B. et Br. Fungi of Ceylon n. 1059. — 1357
— Globosum, superficiale, facile caducum, coccineum, carne pallida subconcolori, ostiolis punctiformibus.

Hab. ad ramos plantæ cujusdam scandentis monocotyledoneæ. — Inter *Hypoxylon* et *Hypocream* fere medium. Stroma 6–7 mill. diam. Fructificatio ignota.

26. **Hypoxylon? Gangræna** Ces. Myc. Born. p. 19. — Tuberculis con- 1358
fluentibus, gyrosis, ramulos ambientibus præcipue ad axillas, e stromate sterili pulverulento efformatis, illa *Hypoxyli fusci* vel congenerum steriliscentia colore et velo pruinoso simulantibus, intus aterrimis, compactis, cultro sat duris.

Hab. ad Sarawak Bornei, in ramulis.

27. **Hypoxylon suberosum** B. et C. Cuban Fungi n. 823. — Globosum, 1359
superficie minutissime areolato-rimosa subruginosa, contextu albo suberoso; peritheciis globosis immersis, ostiolis latentibus.

Hab. in ligno putri. — Stroma 3–4 mill. diam.

28. **Hypoxylon rotatum** B. et C. North Amer. Fungi n. 835. — Peri- 1360
theciis paucis majoribus in pulvinulos congestis, rubiginosis, ostiolo demum truncato perforato; sporidiis breve cymbiformibus, magnitudine variis.

Hab. in ramis Celtidis, Viburni dentati in Carolina et Pensylvania, Amer. boreali.

29. **Hypoxylon Peckianum** Sacc., *H. xanthocreas* Curt. in herb., nec B. et C. North Amer. Fungi n. 839. — Pulvinatum, indumento mucedineo compacto flavido conidiophoro initio obductum; conidiis ellipsoideis 4–5 μ. longis, dein denudatum, purpureo-brunneum, luteo-marginatum, superficie inæquali, intus pallidum, prope corticem flavum; ascis.....; sporidiis oblongis 10–15 μ. longis, fuscis. 1361

Hab. in truncis Alni prostratis, Center, Amer. bor. — Ab *H. xanthocreate* mox dignoscendum. Cfr. Peck in 31 Rep. on the St. Mus. p. 49.

30. **Hypoxylon endoxanthum** Mont. Syll. Crypt. n. 725, Guy., mss., n. 528. — Erumpens, subglobosum, fragile, subsimplex, aut confluendo compositum, fusco-atrum, opacum, velo argillaceo inspersum, intus pallidum; peritheciis globosis endoxanthis, ostiolis crassis prominulis obtusis. 1362

Hab. e rimis corticis longitrorsum erumpens, Cayenna (Leprieur).

31. **Hypoxylon discolor** B. et Br. Fungi of Ceylon n. 1076. — Pulvinato-effusum, albo-vestitum; peritheciis materie citrina vel candida colligatis; ascis linearibus; sporidiis late ellipticis utrinque apiculatis, 9 ≃ 6-6,5. 1363

Hab. in lignis putridis, Central province, Ceylon.

32. **Hypoxylon glomiforme** B. et C. North Amer. Fungi n. 828. — Hemisphæricum, ferrugineo-pulveraceum, demum denudatum, nitidum, læve; peritheciis conditis; stromate atro-fusco; ascis..... 1364

Hab. in cortice Quercus nigræ, Connecticut, Amer. boreali (Wright). — Stroma 6–7 mill. diam. Ostiola obsoleta.

33. **Hypoxylon vinosum** Mont. Syll. Crypt. n. 734, Cent. II, n. 46, l. c. — Orbiculare effusumque ad cortices, unciale, tenue, granulosum, pulvere vinoso-violaceo conspersum, intus luteo-cerinum, margine sterilis; peritheciis confertis minutis oblongis prominulis intus atris, apice umbilicato pertusis. 1365

Hab. ad cortices dejectos in sylvis, Cayenna (Leprieur).

34. **Hypoxylon quisquiliarum** Mont. Syll. Crypt. n. 727 et in Cent. II, n. 52, in Ann., Ser. 2, XIV, p. 321, Berk. Fungi of Ceylon n. 1065. — Erumpens, hemisphæricum, liberum, simplex vel compositum, stromate corticali primitus luteo dein fusco furfuraceo-velatum; peritheciis magnis crassis conceptaculo integro circumscriptis, globosis, intus atro-fuscis, ostiolis papillatis, papilla cin- 1366

gulo albo cincta; ascis (sec. Berk.) linearibus, amplis; sporidiis cymbiformibus acutiusculis, 30 ≃ 12–13, binucleatis.

Hab. ad ramos dejectos, Guyana (Leprieur), in corticibus et lignis, Peradeniya, Ceylon (Berk.). — Perithecia late ovata, ostiolo furfure luteo vestito, teste Berk.

35. **Hypoxylon majusculum** Cooke Grev. VII, p. 80, *H. multiforme* var. Cooke Fungi Brit. I, 374, *H. fragiforme* v. *major* Berk. — Globosum v. confluens, rubro-fuscum, dein nigrum; peritheciis ovoideis, stromate fuligineo-nigro; ostiolis denique prominulis; sporidiis ellipsoideis, sæpe curvulis, utrinque leniter acutis, atro-fuligineis, 18 ≃ 7. 1367

Hab. in lignis putrescentibus in Britannia. — Ab *H. coccineo* sporidiis multo majoribus mox dignoscitur.

36. **Hypoxylon fuscum** (Pers.) Fr. Summ. Veg. Scand. p. 384, Nits. Pyr. Germ. p. 35. *Sph. fusca* Pers. Syn. p. 12. *Sph. fragiformis* Hoffm. Veg. Crypt. I. 20, nec Pers., *Sph. confluens* Willd. Fl. Berol. p. 416. — Stromate sæpius per peridermium erumpente, deinde superficiali, libero, maculiformi, depresse pulvinato, hemisphærico v. rarius subgloboso, discreto, connato v. confluente, rarius in ligno nudo, rarissime in cortice omnino superficiali, plus minus effuso, ex purpureo fuscescente, tandem aterrimo, maturo peritheciis globosis, irregulariter monostichis, stipatissimis, verticibus rotundatis prominulis minute mammilloso; hymenio conidifero pallide argillaceo fuscescente, pulveraceo; conidiis minimis ovatis, in sterigmatibus brevibus, parce ramosis solitarie acrogenis; ascis cylindricis, longe pedicellatis, octosporis, paraphysibus filiformibus, superatis, 84–110 ≃ 6–8 p. sporif.; sporidiis monostichis, ovatis obtusis, plus minus inæquilateralibus, nigricantibus, 12–16 ≃ 5–7. 1368

Hab. in cortice Alni, Coryli, Betulæ, Fagi, Cratægi, Carpini, Castaneæ, Fraxini, Quercus, Ulmi, Corni, Lauri etc., in tota Europa, Africa et Amer. boreali.

37. **Hypoxylon gemmatum** B. et Rav. North Amer. Fungi n. 831. — Parvum, pulvinatum, rubiginosum, ostiolis prominulis nigris, centro perforatis gemmatis. 1369

Hab. in ramis Liquidambaris Carolinæ inf., Amer. bor. — Stroma vix 2,5 mill. lat. pulvinato-applanatum.

B) Stroma extus atrum, v. initio fuscescens, dein atrum.

38. **Hypoxylon cohærens** (P.) Fr. Summ. Veg. Scand. p. 384. Nits. Pyr. Germ. p. 42. Sacc. Fung. ital. t. 750. *Sphæria cohærens* Pers. 1370

Synop. p. 11. — Stromate erumpente, mox omnino superficiali, libero, subgloboso v. deplanato-pulvinato, crasso, arcte approximato v. connato, rarius confluente, primo sordide fusco, deinde nigricante, lævi, peritheciis monostichis, grandiusculis, globosis v. ovatis, parum tantum prominentibus, minutissime papillatis, obtuse mammilloso; hymenio conidifero pallide argillaceo, cinerascente; conidiis obovato-subglobosis, minimis; ascis cylindricis, longissime ac tenuiter pedicellatis, octosporis, paraphysibus filiformibus simplicibusque stipatis, 80–92 ≃ 7 p. sporif.; sporidiis monostichis, ovatis, obtusissimis, inæquilateralibus, nigricantibus, 12 ≃ 6.

Hab. in ramis crassioribus corticatis Fagi sylvaticæ, rarius Quercus, Nyssæ, Aceris in Britannia, Belgio, Germania, Gallia, Suecia, Italia, Helvetia, Java, Borneo, Carolina, New-Jork. — Var. *minor*. In Polyporo putri in Borneo.

39. **Hypoxylon smilacicolum** Howe, New Fungi, Hedw. 1875, p. 188. — 1371
Minutum, nigrum, subrotundum, v. ellipticum, irregulariter confluens, pulvinatum; peritheciis subglobosis; ascis cylindraceis subclavatis; sporidiis subnaviculariibus, fuligineis, 15–20 ≃ 7,5, sæpe nucleolatis.

Hab. in trunculis emortuis Smilacis, Yonkers, New-York, America boreali. — *Sphæria smilacicola* Schwein., Fr. Elench. Fung. II, pag. 71, aliena est et sistit *Diatrypem smilacicolam*. Cfr. n. 739.

40. **Hypoxylon sertatum** Dur. et Mont. Fl. Alg., I, p. 455, sub *Sphæria*, Mont. Syll. Crypt. n. 732. — Orbiculare ellipticumve, confluens, cupulæforme, atrum, extus margineque elevato rugosum, intus concolor; peritheciis oblongis paralleliter stipatis erectis, ostiolis prominulis hemisphærico-conicis; sporidiis fuscis oblongo-ellipticis, 18–20 μ. longis. 1372

Hab. in ramis Quercus Suberis, La Calle; Juglandis regiæ, Périgueux (Duriæu). — An *Nummularia?*

41. **Hypoxylon pauperatum** Karst. Enum. Fung. Lapp. p. 211. Myc. Fenn. II, p. 42. *Sphæria mammata* Nyl. Not. pro Fauna et Fl. Fenn. n. 7 (1869), p. 88. — Stromate per peridermium transversim erumpente, lateribus ab laciniis ejus arcte adhærentibus cincto, orbiculari vel subellipsoideo, deplanato-pulvinato, crasso, cortici interiori vel rarius ligno adnato; peritheciis protuberantibus tuberculoso, atro, discreto, raro connato, longit. 4–10 mill., latit. 2–4 mill.; peritheciis irregulariter monostichis, subsphæroideis, vertice rotundato plus minus prominulis, papilla minuta subconoidea instructis, fuscis, paucis, 1–16, in quovis stromate, magnis diam. 1373

1–2 mill.; ascis cylindraceis, octosporis, pedicellatis, obturaculo apicali minuto jodo cœrulescente, 120–160 ≃ 11–12 p. sporif.; sporidiis monostichis, oblongatis vel subellipsoideis vel subcylindraceis, rectis vel nonnihil inæquilateralibus, 1–2-guttulatis, fuscis, 18–31–, plerumque 19–26 ≃ 8–12; paraphysibus filiformibus, gracilescentibus 2–3 μ. cr.; hymenium conidiferum pulveraceum, tandem fuscescens; conidia subsphæroidea, minima.

Hab. in cortice truncorum ramorumque Salicis phylicifoliæ, Salicis nigricantis et Sorbi Aucupariæ in Fennia et Lapponia.

42. **Hypoxylon pavimentosum** Ces. Myc. Born. p. 18. — Glebis difformi-orbicularibus depressis, in crustam effusam applanatam stipatis, tuberculosis, ostiolis subtectis nigro-punctatis, intus concoloribus; ascis ob nimiam maturitatem speciminum nullis observatis; sporidiis ovoideo-oblongis, fuscis 9–17 ≃ 4–7. 1374

Hab. ad Sarawak, Borneo, ad cortices.

43. **Hypoxylon pauxillum** Ces. Myc. Bor. p. 18. — Glebulis pusillis, e peritheciis 5 vel 6 (ubi plura adsint, biseriatis), stromate atro-nitenti tenuissimo obvolutis, tuberculosis, applanatis, intus albidis, puncto centrali matrici (ligno mucido) adfixis; fructificatione non visa. 1375

Hab. ad Sarawak, Borneo, ad truncos.

44. **Hypoxylon multiforme** Fr. Summ. Veg. Scand. p. 384. Nits Pyr. Ger. p. 43. *Sph. multiformis* Fr. S. M. II, 334. *Sph. rubiformi* Pers. Syn. p. 9. *Hyp. granulosum* Bull. Champ. t. 487, f. 2. — Stromate in ramis corticatis per peridermium erumpente, lateribus, ab ejus laciniis cincto v. tandem libero superficiali, hemisphærico, crasso, subglobosum, elliptico ac deplanato v, convexo, sæpissime autem deformi, in ligno denudato contra plus minus effuso, omnino superficiali; stromatibus raro discretis, plerumque connatis v. confluentibus, primo rubiginoso-fuscescentibus, deinde atris, lævibus, peritheciis majusculis, globosis, irregulariter monostichis, vertice papillatis, protuberantibus tuberculosis; hymenio conidifero sordide luteo, deinde fuscescente; conidiis minimis, obovatis; ascis cylindricis, longissime pedicellatis, octosporis, paraphysibus tenuissimis, filiformibus, simplicibus, superatis, 72–100 ≃ 6 p. sporif.; sporidiis monostichis, fusiformibus, inæquilateralibus, fuscis, 10–12 ≃ 4–5. 1376

Hab. in ramis truncisque Betulæ, Alni, Sorbi, Quercus, Castaneæ, in tota Europa, India or., Nepal, Amer. bor., Kamts-

chatka. Adest var. *granulosa*, effusa subnuda, peritheciis ad dimidium liberis papillatis; habitu *H. serpenti* simillima, sed ascis cylindricis longissime stipitatis, 70–80 ≃ 4 p. sporif.; stipite usque 100 micr. long.; sporidiis fusiformibus, 12–15 ≃ $3^1/_2$–$4^1/_2$, sæpius curvulis, utrinque longiuscule attenuatis, 2-guttulatis, pallide fusco-olivaceis statim dignoscenda. In lignis Italiæ bor. etc.

45. **Hypoxylon Kalchbrenneri** Sacc. *Hypoxylon Placenta* Kalch. in Grev. 1880, p. p. 28 (nec Link et Fr.). — Corticolum, applanatum, atrum, erumpens; stromate discoideo, margine tenui, sterili, centro ostiolis punctiformibus punctato; ascis cylindraceis; sporidiis uniseriatis, ellipticis, atro-fuscis, 12 ≃ 6. 1377

Hab. in ramis in Africa australi. — *Anthostomati exutanti* Cooke (n. 1105) affine, immo forte varietas, sec. Cooke.

46. **Hypoxylon stigmoideum** Ces. Myc. Corn. p. 17. — Glebis tenuibus, complanatis, determinatis, nigris, e cortice erumpentibus, ostiolis latentibus; sporidiis ovoideis, utrinque obtusis, 5 ≃ 2. 1378

Hab. in Sarawak, ad corticem mollem, pseudosuberosum.

47. **Hypoxylon Pseudo-tubulina** Ces. Myc. Born. p. 17. — Acervulis atris, e subiculo concolori tenui hypophlœode per corticem ramorum, ad arborem mihi ignotam spectantium, erumpentibus, *Hypoxylo serpenti* subaffinibus; singulis glebis applanatis, circumscriptis, elongatis, obtusis, sæpius rimosis magisque sensu longitudinis, omnino *Tubulinam* præmature exsiccatam referentibus; sporidiis (teste Cooke) oblongis, 35 ≃ 13. 1379

Hab. ad Sarawak, Bornei.

48. **Hypoxylon heterostomum** Mont. Syll. Crypt. n. 739, Cent. II, n. 49, l. c., p. 358, t. 10, f. 8. — Erumpens, convexo-planum, suborbiculare, læve, atrum; peritheciis confertis, oblongis, erectis, monostichis, ostiolis polymorphis, centralibus annularibus, cæteris aut canterios, aut puncta admirandi, aut et lirellas opographæ e centro radiantes referentibus, anguli apice aut lineæ parte incrassata ad peripheriam versis; ascis elongato-clavatis, sporidia 6–8 elliptico-subreniformia foventibus. 1380

Hab. ad corticem truncorum dejectorum in sylvis Montis *Tigre* insulæ Cayennæ (Leprieur).

49. **Hypoxylon porosum** Mont. Syll. Crypt. n. 723, Guy., mss., n. 523. — Stromate pulvinato, carbonaceo, crasso, hemisphærico, extus intusque atro; peritheciis elongatis erectis phialiformibus, ostiolis erumpentibus tandem late porosis; ascis clavatis, 30 μ. longis, octosporis; sporidiis ovoideis, minimis, 5 ≃ 3,5. 1381

Hab. ad cortices? Guyana (Leprieur).

50. **Hypoxylon Javanicum** (Zipp. et Lév.) Sacc. *Sphæria* (pulvinata) *Javanica* Zipp. mss. Lév. Ann. Scienc. nat. 3, 1845, p. 46. — Convexum suborbiculare, verrucis prismaticis asperum, fuscum; peritheciis subglobosis stromate albo immersis, ostiolis obsoletis; sporidiis monostichis ellipsoideis. 1382

Hab. ad truncos in Java. — Corticolum, centro adfixum.

51. **Hypoyxlon anthracodes** (Fr.) Mont. Ann. Sc. nat. 1840, XIII, p. 359. *Sph. anthracodes* Fr. in Linnæa 1830, p. 544. — Subeffusum, contiguum, leve, aterrimum, stromate carbonaceo; peritheciis irregularibus; ostiolis minimis punctiformibus; ascis.....; sporidiis (sec. Speg.) elliptico-limoniiformibus, sæpius inæquilateris, 12–14 ≃ 6–8, 2-guttulatis, atro-fuligineis. 1383

Hab. in ramis dejectis in Brasilia, Argentina, Borneo; in trunco Tiliæ, Trenton Falls, Amer. bor. — Linea nigra stromatica de cortice per lignum excurrit.

52. **Hypoxylon annulatum** (Schw.) Mont. Syll. Crypt. p. 213. *Sph. annulata* Schw. New. Sph. Am. p. 11. t. 2. f. 8 et Fr. Elench. II, 64. — Hemisphærica, confluens, nigricans, intus concolor; peritheciis subglobosis, ostiolis in disco dilatato, annulato-marginato prominulis; ascis cylindraceis; sporidiis ovoideis, curvulis fuligineis. 1384

Hab. ad cortices et ligna Quercus, Magnoliæ etc. Carolina, Georgia, Florida, Chili et Nova Zelandia. — Singulari charactere ab omnibus recedit, ceterumque nobilissima species. Pustulæ superficiales (etiam in cortice) hemisphæricæ, subregulares, 2–4 lin. latæ, mox confluentes, opacæ, atræ, sed juniores procul dubio pruinosæ et purpurascentes; stroma carbonaceum, nigrum; perithecia numerosa, magna, subglobosa aut obovata; discus dilatatus, planus, annulato-marginatus supra singulum perithecium huic speciei privus est; ostiolum, in medio disci elevatur, papillæforme.

Var. *depressum* Welw. et Curr. Fungi Angol. p. 283, *Sph. annulata* β. *depressa* Fr., irregulariter effusum, crassiusculum, innato-pruinosum purpurascenti-nigrum, peritheciis prominulis, amplis dein apice lato depresso-truncato marginato papillatis; sporidiis ovoideis inæquilateralibus, 7–8 μ. long., fuligineis. — In corticibus Pensylvaniæ et Angolæ, Africæ occid.

52. **Hypoxylon diathrauston** Rehm, Ascom. n. 274 et Diagn. n. 274. — Peritheciis carbonaceis, fragilibus, in corticis superficie sessilibus, solitariis vel plerumque in plagas irregulares, usque ad 1 cent. longas latasque conglobatis, itaque vario modo angulatis, globosis, 1385

apice in papillam conicam, obtusam protractis, atrocinereis, nitentibus, c. 1 mill. diam.; ascis cylindraceis, apice valde incrassatis, jodoque cœrulescentibus, 200 ≃ 12, 8-sporis; sporidiis oblongo-ellipticis, nucleo centrali magno instructis, circulo mucoso angusto circumdatis, 1-stichis, 20 ≃ 10; paraphysibus teneris, articulatis, c. 6 μ. crassis.

Hab. ad ramos emortuos Pini Mughi et pumilionis in alpe Kühtai Tyrolensi.

53. **Hypoxylon areolatum** B. et C. Cuban Fungi n. 824. — Hemisphæricum, pulvinatum, superficie areolata, cute durissima, contextu nigro; ostiolis sparsis demum prominulis; sporidiis utrinque obtusis, 30-35 μ. long. 1386

Hab. in cæspitibus, in sylvis Cubæ. — Stroma 8-10 mill. latum.

54. **Hypoxylon exsurgens** Mont. Syll. Crypt. n. 728 et Guy., mss., n. 532. — Erumpens, oblongum, pulvinatum, convexum, marginulatum, atrum, opacum; peritheciis in stromate fuligineo-atro zonato peripheriis ovoideis ostiolatis, ostiolis prominulis confertis minimis. 1387

Hab. ad cortices, Guyana (Leprieur).

55. **Hypoxylon leucocreas** B. et Rav. North Amer. Fungi n. 837. — Parvum pulvinatum e peritheciis prominulis papillatum, nitidum, intus niveum; ascis linearibus; sporidiis parvis, ellipticis, monostichis, fuligineis. 1388

Hab. in truncis cæsis Quercus in Carolina infer., Amer. bor. — Stroma minutum $1^1/_2$ mill. diam.

56. **Hypoxylon comedens** Ces. Myc. Born. p. 19. — Tuberculis, penitus *Nummulariæ* facie, fossulas ab ipsius pyrenomycetis prostromate excavatas replentibus, ovalibus vel elongatis, rarius difformibus, $^1/_3$-3 pollices longis, vel confluentibus convexis, plano-marginatis, a basi solubilibus (dimidiatis), et tunc superficiem internam planissimam, e basi peritheciorum magnorum crassiorumque disrupta, grosse ocellatam ostendentibus, extus nigris albo-pruinatis si zonulam marginalem demas; ascis....; sporidiis (teste Cooke) 20 ≃ 8. 1389

Hab. ad Sarawak, Borneo. — Comparandum cum *H. exsurgente* Montagne (Cesati).

57. **Hypoxylon lucidulum** Mont. Syll. Crypt. n. 729, Cent, II, n. 43, in Ann., 2, XIII, p. 354. — Sessile, orbiculare, subcupulæforme, centro umbonato, extus intusque carbonaceum, atro-nitidum; peritheciis paucis amplis globosis, concoloribus, ostiolis punctiformi-prominulis; sporidiis cymbiformibus, elongatis. 1390

Hab. ad ligna in sylvis prope amnem Conana, Guyana (LEPRIEUR), Cuba (BERK.).

58. **Hypoxylon leucostigma** (Lév.) Sacc. *Sph. leucostigma* Lev. Fragm. mycol. p. 142. — Stromatibus subglobosis cohærentibus, fusco-nigricantibus, intus nigris; peritheciis peripheriis prominulis, ostiolis pertusis albis; ascis cylindraceis, tenuibus, octosporis, parce paraphysatis; sporidiis ovoideis inæquilateralibus, opacis, monostichis, subinde uniguttatis. 1391

Hab. ad corticem Quercus, Vincennes prope Parisios.

59. **Hypoxylon xanthocreas** B. et C. North Amer. Fungi n. 839. — Pulvinatum, nigrum, demum confluens e peritheciis prominulis papillosum; stromate flavo; ascis linearibus; sporidiis uniserialibus ellipticis 7,5 μ. longis. 1392

Hab. in truncis, New England Amer. bor. — Stromata confluentia 12–15 mill. lata. Differt ab *H. endoxantho* Mont.

60. **Hypoxylon Fragaria** Ces. Myc. Born. p. 18. — Globosum, sparsum, singulis glebis a pisi ad majoris avellanæ magnitudinem, nunc omnino sphæricis ad basim parum contractis, nunc basi applanata ad cortices adfixis, tuberculoso-rugosis, umbrinis vel atris, sæpe rore vel pulvere lætius colorato velatis; ostiolis papillæformibus atris quandoque emergentibus; stromate duro intus nigrescente, fere ex toto a peritheciis repleto; peritheciis magnis, imo ubi paucioribus maximis, minoris nempe pisi magnitudine, pyriformibus vel globosis, ex mutua pressione obtuse angulosis, pellicula fibrillosa sericea umbrina indutis; parietibus crassis carbonaceis; intus hyphasmate quodam luteolo farctis; sporidiis maximis, 12–14 ≃ 7–8 (?), cylindraceis utrinque obtusis, nigro-brunneis, subopacis, ascorum vestigiis nullis. 1393

Hab. in Ceylon ad Pedrotallagalla et ad Sarawak. — Conferendum cum *Ustulina macrosperma.*

61. **Hypoxylon Glomus** B. et C. North Amer. Fungi n. 836. — Erumpens, pulvinatum, subangulare, nigrum; peritheciis paucis; ostiolis hic illic erumpentibus perforatis. 1394

Hab. in corticibus, New England Amer. bor. — Stroma nigrum, apice subrubescens; perithecia 5–6 in quoque stromate, majuscula. Fructificatio jam dispersa.

62. **Hypoxylon Berterii** Mont. Syll. Crypt. n. 719 et Fl. J. Fern., n. 58, sub *Sphæria,* et Fl. Chil., VII, p. 538, t. 9, f. 3. — Orbiculare, subsessile; peritheciis globosis, prominulis, papillatis in stro- 1395

mate crasso albo, plano-convexo, undulato, atro-corticato immersis; sporidiis cymbiformibus.

Hab. ad ligna in insula Juan Fernandez (BERTERO).

63. **Hypoxylon monticulosum** Mont. Syll. Crypt. n. 731 et Guy., mss., n. 538. — Pulvinatum, carbonaceum, pulvinis convexis orbicularibus confluentibus colliculosis extus intusque atris; peritheciis periphericis monostichis obovoideis sursum prominulis, ostiolo mammillari; sporidiis cymbiformibus. 1396

Hab. ad ligna, Cayenna (LEPRIEUR).

64. **Hypoxylon Murrayi** B. et C. North Am. Fungi n. 829. — Subglobosum, gregarium, extus intusque nigrum, ostiolis dense papillosum. 1397

Hab. in corticibus putridis, Boston Amer. bor. — Stroma 2,5-3 mill. diam. Ostiola minuta. Affine *Hypoxylo Bombæ* Mont. sed dense mammillosum.

65. **Hypoxylon Comaropsis** Mont. Syll. Crypt. n. 720 et Cent. II, n. 36, in Ann., Ser. 2., XIII, p. 350. — Globosum, fragilissimum intus et extus atro-fuscum; peritheciis erectis globosis discoideo-prominulis fuscis collabascentibus, ostiolis in disco applanato papillatis; sporidiis cymbiformibus, fuscis. 1398

Hab. ad ligna putrida in sylvis Sinnamariensibus (LEPRIEUR).

66. **Hypoxylon Bomba** Mont. Syll. Crypt. n. 720 et Cuba, pag. 338, t. 12, f. 3. — Cæspitosum, raro solitarium; peritheciis amplis globosis lævibus, apice poro sensim ampliato regulariter terebratis, basi anfractuoso-vacua lignum nigrefactum penetrantibus. 1399

Hab. ad cortices dejectos circa S. Marcos Cubæ insulæ (AUBER) et in Brasilia (BLANCHET).

67. **Hypoxylon carabayense** Mont. Pl. cellul. cent. VII, p. 372. — Erumpens, initio globosum, dein supra deplanatum, subdisciforme marginatum, fuscum, intus pallidum, margine disci fuliginei repandum; peritheciis sphæricis 1 ad 8, immersis intus nitidis, nucleo atro farctis, ostiolo punctiformi instructis; ascis magnis cylindraceis 8-sporis, paraphysibus stipatis; sporidiis amygdalinis brunneis granulosis, oblique uniseriatis. 1400

Hab. in cortice ramorum in provincia Barabaya, Peruviæ. — *H. Comaropi* Mont. subaffine. — An *Nummularia?*

68. **Hypoxylon obesum** Fr. Nov. Symb. 129. — Carbonaceo-durissimum, nudum, atrum, stromate pileato lentiformi, immarginato parum excedente stipitem crassissimum breve, intus radiante cinereo-atro, peritheciis immersis periphericis bullato-prominulis, ostiolis papillatis, area orbiculari elevato-marginata cinctis. 1401

Hab. ad truncos in Costa Rica (Œrsted.). — Ob areolas circa ostiolum *H. annulato* affine.

69. **Hypoxylon congestum** B. et Br. Fungi of Ceylon n. 1054. — In glebas elevatas multipartitas congestum; peritheciis in stromate viridi sitis; sporidiis subglobosis, 12–17 μ. diam. 1402

Hab. in ligno putri Ceylon. — Sporidia illis *Nummulariæ* speciei conformia.

70. **Hypoxylon deciduum** B. et Br. Fungi of Ceylon n. 1057. — Pulvinatum, pruinosum vel scabrum, facile deciduum; peritheciis immersis; ostiolis abditis vel tantum prominulis. 1403

Hab. in foliis Palmarum, Central province, India or. (Berk.), Bintula, Borneo (Beccari).

71. **Hypoxylon Placenta** (Link. et Fr.) Sacc. *Sph. Placenta* Link. et Fr. in Linnæa 1830, p. 539. — Hemisphærico-globosum, extus intusque atrum, intus azonum; peritheciis peripheric is, polystichis, globosis; ostiolis papuloso-hemisphæricis. 1404

Hab. in trunco ad Friburgo novo Brasiliæ (Beyrick). — Species habitu fere *Daldiniæ concentricæ*, sed intus azona; perithecia in hac tribu majuscula.

72. **Hypoxylon Scriblita** Mont. Syll. Crypt. n. 730 et Guy., mss., n. 537. — Orbiculatum, placentæforme, ambitu depressum, atro-fuscum; peritheciis magnis ad marginem attenuatum sphæricis, cæteris subcubicis, ostiolo annulari in depressionibus stromatis carbonacei subconfluentibus prominulo; sporidiis subfusiformibus. 1405

Hab. in cortice ramorum, Cayenna (Leprieur).

73. **Hypoxylon Petersii** B. et C. Cuban Fungi n. 822. — Stromate pulvinato hemisphærico duro, ex umbrino nigro, intus umbrino; peritheciis stratosis elongatis; superficie papillosa, ostiolis minutis nigris; sporidiis 7–8 μ. longis. 1406

Hab. in ligno putri Quercus etc, Cuba et Alabama. — Stroma 25 mill. lat., 9 mill. cr., interdum diffractum.

74. **Hypoxylon turbinulatum** (Schw.) Berk. North Am. Fungi in Grev. *Sph.* (Hypoxyl.) *turbinulata* Schw. Syn. Amer. bor. n. 1204. — Turbinato-pulvinatum, applanatum, subconfluens, tamen pulvinulis semper distinctis; peritheciis non peripheric is sed per totum stroma ad basim usque dispersis, majoribus; superficie externa granulata, pulveraceo-rugosa; ostiolis minutis prominulis; stromate parco pro magnitudine peritheciorum, e fuliginoso albido. 1407

Hab. in ligno fagineo montis Pocono, Pensylvaniæ, Ame-

rica bor. — Pulvinuli seriatim siti quasi litteras hebraicas formant, et insident crustæ nigræ in cortice effusæ.

75. **Hypoxylon Cycliscum** Mont. Syll. Crypt. n. 742, Guy., mss., n. 544. 1408
— Orbiculare, applanatum, læve, aterrimum; stromate carbonaceo; peritheciis ovoideis, ostiolis minutissimis, depressionibus punctiformibus immersis; sporidiis generis.

Hab. in cortice ramorum, Cayenna (Leprieur).

76. **Hypoxylon campsotrichum** Mont. Syll. Crypt. n. 141, Cent. VI, 1409
n. 96, in Ann., Ser. 3., XII, p. 314, sub *Sphæria*. — Globosum, extus intusque atrum; peritheciis paucis amplis, membranaceis, furfure pallescente obductis crustaque tectis, ostiolis prominulis rugosis; paraphysibus uncinatis.

Hab. e cortice ramorum prorumpens in insula Mascarena (Adolphe Delessert).

77. **Hypoxylon undosum** (Lév.) Sacc. *Sph.* (pulvinata) *undosa* Lév. 1410
Ann. Sc. nat. 3, 1845, p. 46. — Convexum, pulvinatum, undulatum, nigrum, nitidum; peritheciis oblongis stromate fibroso-celluloso immersis; ostiolis obsoletis; ascis linearibus, paraphysatis; octosporis; sporidiis continuis opacis.

Hab. in Java ad truncos (Zippel). — Corticolum, 5-6 mill. lat., 2-3 crass., basi centro fixum.

78. **Hypoxylon Macrocenangium** Ces. Myc. Born. p. 19. — Tuberculis 1411
a matrice ignota solutis *Cenangium* quoddam dimensionibus insigne in mentem revocantibus, applanatis, orbicularibus v. ellipticis, pollicaris diametri, margine rotundato sterili distincto, disco depresso æquabili ostiolis vix conspicuis punctato, colore pyreniorum Coffeæ adustorum, obscuriori, fere atro in disco; stromate intus concolori, gleba peritheciorum difformium stipatorum discreta, compagem verticaliter lamelloso-cellulosam sistenti, strato crustaceo involuta; sporidiis (teste Cooke) oblongis, 6 ≃ 3.

Hab. in truncis, Sarawak Bornei. — Cl. Cesati fructificationem spermogonicam tantum reperit.

79. **Hypoxylon macromphalum** Mont. Syll. Crypt. n. 740, Guy., mss., 1412
n. 543, t. 5, f. 8. — Erumpens, orbiculare, plano-convexum, lenticulare, atrum, nitidum, centro determinate discoideo-umbilicatum; peritheciis ovideis erectis monostichis, centralibus ostiolatis, ostiolis 5-6 centro disci prominulis; sporidiis oblongis, fuscis, opacis.

Hab. in cortice ramorum circa Cayennam (Leprieur).

80. **Hypoxylon Malleolus** B. et Rav. North Amer. Fungi n. 827, *H.* 1413
concentricum Rav. Fungi Amer. n. 181, nec aliorum. — Globo-

sum confluens, ostiolis annulo depresso circumdatis, stromate nigerrimo.

Hab. in truncis quercinis et populinis in Carolina, Am. boreali. — Globosum 20 mill. diam. subinde lateraliter confluens. Ostiola fere *H. marginati.*

81. **Hypoxylon marginatum** (Schw.) Berk. Cuban Fungi n. 830, *Sph. marginata* Schw. Syn. Amer. bor. n. 1176. — Hemisphæricum, confluens, denique nigrum, intus concolor, ostiolis singulis in areola disciformi marginata sitis; ascis cylindraceis, breve stipitatis, octosporis; sporidiis subreniformibus, sæpe 2-nucleatis, 6–9 μ. longis, pallide fuligineis. 1414

Hab. in cortice et ligno denudato in Britannia, Ceylon, Cuba, Borneo, Amer. bor., Venezuela, Africa occid. præcipue in Quercu, Myrica, etc. — *Sph. marginata* Fr. Elench. fung. II, 69, ni fallor, ad *Nummulariam discretam* est referenda. — Adest forma *effusa.*

82. **Hypoxylon microstictum** Mont. Syll. Crypt. n. 741, Cent. II, n. 50, sub *Sphæria*, l. c., p. 358. — Erumpens, orbiculare vel oblongum, applanatum, punctis minutissimis exasperatum, extus albo-pruinosum, intus nigrum; peritheciis ovoideis membranaceis, immerso-latentibus, ostiolis papillatis, papilla marginata; ascis linearibus sporidia cymbiformia utroque fine acuminata, hinc caudata, quaterna foventibus. 1415

Hab. ad cortices dejectos in sylvis Sinnamariensibus (Leprieur). — An *Nummularia?*

83. **Hypoxylon culmorum** Cooke in Rav. Fungi Amer. in Grevill. VII, p. 51. — Parvum, convexum, ellipsoideum, atrum, nitidum; ostiolo papilliformi; ascis cylindraceis; sporidiis navicularibus, curvulis, nucleatis, brunneis, 15–18 ≃ 5. 1416

Hab. in culmis Arundinariæ, Darien, Georgia Amer. bor.

84. **Hypoxylon microsporum** Ces. Myc. Born. p. 17. — Pulvinulis nigris, opacis, late effusis, minutis 3–4 mill. latis, rarius confluentibus, orbicularibus, depressis, peritheciis 10–20 minutis nisi ostiolis punctiformibus emergentibus; ascis linearibus 50 μ. longis; sporidiis monostichis, ovoideis opacis, 6–7 ≃ 3. 1417

Hab. ad Sarawak, Borneo, ad lignum nudum durum.

85. **Hypoxylon mauritanicum** Dur. et Mont., Fl. Alg., I, p. 45, sub *Sphæria*, Mont. Syll. Crypt. n. 718. — Tuberculis in crustam crassam margine repandam subtus productam tandem fusco-nigricantem connatis; peritheciis peripheriis ovatis, stromati immersis, 1418

ostiolo papillato; ascis cylindraceis 120 ≃ 10, sporidia 20 ≃ 5, oblonga serie simplici duplicive foventibus.

Hab. in caudicibus rubustis Chamæropis, La Calle (Durieu). 1419

86. **Hypoxylon Melanaspis** Mont. Syll. Crypt. n. 738, Cent. II, n. 48, sub *Sphæria,* in Ann., Ser. 2., XIII, p. 357, t. 10, f. 7. — Erumpens, ellipticum, planum, centro subumbonato, extus et intus atrum; peritheciis centralibus ovoideis, ostiolis punctiformibus in areolis vix prominulis orbicularibus confluentibus; sporidiis monostichis, navicularibus, octonis, 22-24 ≃ 6-7, fuscis, hyalino-caudatis.

Hab. ad cortices ramorum emortuorum in sylvis Guyanæ centralis et circa Cayennam (Leprieur).

87. **Hypoxylon pachyloma** (Lév.) Mont. Speg. Fungi Arg. IV, n. 132. 1420
— Stromatibus suborbicularibus, 5-20 mill. diam., superne inferneque applanatis, tenuiusculis, 1 mill. crass., erumpentibus, cortice laciniatim disrupto cinctis, subtruncato-marginatis, disco densiuscule papillulato-aspero, ambitu obtusiusculo latiuscule sterili ac levi, intus extusque atro-carbonaceis, opacis, glaberrimis; peritheciis immersis, globosis, e mutua pressione ellipticis, 300 ≃ 200, monostichis, a margine stromatis remotiusculis, ostiolo subconico, prominulo, subexerto, latiuscule umbilicato; ascis cylindraceis, sursum rotundatis crasseque tunicatis, deorsum breve attenuato-stipitatis, 80-85 ≃ 4-5, paraphysibus longioribus, filiformibus, guttulatis obvallatis, octosporis; sporidiis rectis v. oblique monostichis, ellipticoelongatis, inæquilateralibus, subcurvulis, utrinque obtusiusculis, 8-12 ≃ 3-3,5, 1-vel 2-guttatis, fuligineis.

Hab. in ramis, a Thermitibus necatis, Erythrinæ Cristæ-galli en las Conchas, Argent. Amer. austr. — An *Nummularia?*

88. **Hypoxylon Moselei** Berk. Fungi Chall. n. 74. — Orbiculare, 1421
erumpens, leviter depressum, marginatum, primum cortice velatum, margine tenui circumdatum, peritheciis oblongis; ostiolis papillæformibus deciduis; strato exteriore rigido.

Hab. in lignis putrescentibus in insulis Athlanticis. — Stroma 6-7 mill. diam. Affine *Hyp. subaffixo* Schw., sed substantia firmior. In utroque asci nulli reperti.

89. **Hypoxylon turbinatum** Berk. Fungi Chall. Exp. II, p. 4, n. 72, 1422
Speg. Fungi Arg. IV, n. 134. — Laccatum, erumpens, coffeicolor dein nigricans, demum omnino liberatum; receptaculo exacte turbinato deorsum attenuato, apice convexo, centro supra perithecia oblonga membranacea leviter depresso; ascis ellipsoideis breve pe-

dicellatis, paraphysatis; sporidiis oblongis 12–14 ≃ 8–10, pallide fuligineis e latere leniter compressis.

Hab. in lignis truncisque dejectis in Brasilia prope Apiahy. — Stromata 7–14 mill. alt., 8–16 cr., intus ad basim albo-flocculosa, parte intermedia compacta, castaneo-brunnea, subfibrosa, superiore peritheciophora. — Generi *Phylaciæ* Lév. toto habitu accedit nec differt nisi præsentia ascorum: *Phylacia* ergo sistit forte statum pycnidicum ejusdem.

90. **Hypoxylon? Aceris** (C. et E.) Sacc. *Melogramma Aceris* C. et E. 1423
New Jersey Fungi, Grevill. VII, p. 8. — Irregulariter erumpens; peritheciis confluentibus, subdepressis, atris; ascis clavatis; sporidiis longe ellipticis, subcurvulis, brunneis, 35–40 ≃ 15.

Hab. in ramis Aceris, New Jersey Amer. bor. — An *Hypoxylon?* sed profecto non *Melogramma*, nec *Botryosphæria*.

91. **Hypoxylon irradians** Mont. Syll. Crypt. n. 717 et Cent. II, n. 38, 1424
t. 10, f. 2. — Pulvinatum, basi constrictum, obtuse marginatum, papulatum, cinereo-umbrinum; stromate fuliginoso-olivaceo e fibris discoloribus a basi ad peripheriam flabellatim radiantibus composito; peritheciis globosis in strato peripherico (millimetrum crasso) monostichis, ostiolis brevissimis in papilla poro pertusis.

Hab. in sylvis montosis secus amnem Conana in Guyana (Leprieur).

92. **Hypoxylon Avellana** Ces. Myc. Born. p. 18. — Globosum, læve, 1425
nigrum, a pisi ad avellanæ majoris magnitudinem; peritheciis globosis peripheriçis atris; stromatis strato corticali tenui sed sat duro, subcorneo, extus nunc glabro, nunc pulverulento, sed minime rugoso; intus suberoso ex alutaceo albido; peritheciis ab invicem dissitis, parum numerosis, ostiolis ad stromatis superficiem vix conspicuis punctiformibus; ascis linearibus, 40 μ. longis, paraphysum loco mucilagine plus minus hyalina interposita; sporidiis uniseriatis, opacis, navicularibus, utrinque acutis, (teste Cooke) 35 ≃ 10.

Hab. ad Sarawak, Borneo. — Ab *H. globoso* sat diversum præsertim superficie non rugosa.

93. **Hypoxylon globosum** Fr. Nov. Symb. p. 130, *Sph. globosa* Fr. S. 1426
M. II, 331, *H. pilæforme* Berk. et Curt. Sillim. Journ. 1850, p. 95. — Globosum, rugosum, atrum, intus suberosum album fibroso-radians; peritheciis globosis peripheriçis atris.

Hab. in truncis emortuis Portoricci et in insula oceanica Oahu. — Solitarium, pisi v. nucis majoris magnitudine, nudum, tubercu-

losum, opacum; perithecia majuscula, subconferta, tota immersa, passim disticha. Ostiola latentia. Subinde stipitatum, transitumque præbens ad *Xylarias*.

94. **Hypoxylon aggregatum** Welw. et Curr. Fungi Angol. pag. 282, t. 17, f. 22. — Aquilum, late cæspitosum, sessile; stromatibus sphæroideis conico-rostratis vel irregulariter expansis, plurima ostiola præstantibus; sporidiis 1427

Hab. ad truncos vetustos, totam eorum superficiem obtegens, prope Bumba, Golungo alto, Angola (Africa). — Affine *H. cœnopodi* sed sessile.

95. **Hypoxylon tuberiforme** (Wallr.) Mont. Pl. Cell. Cent. VIII, p. 70, *Sph. tuberiformis* Wallr. MS. — Globoso-depressum, supra convexum, subtus cavum, extus tuberculosum, atrum, opacum, intus suberosum, pallidum; peritheciis peripheriçis amplis obovoideis, ostiolis exsertis, minutis confertis, ascis ....; sporidiis fusiformibus continuis inæquilateris, fuscis, 20–30 ≃ 5, 1-2-guttatis. 1428

Hab. rarissime sub terra in Germania. — Magnitudo nucis juglandinæ. An *Ustulinæ* species?

96. **Hypoxylon Kurzianum** Curr. Linn. Trans. (non vidi). — Stromatibus minutis, gregariis, depresso-pulvinatis ex 2–6 peritheciis constantibus, atro-fuscis; peritheciis globoso-depressis, contiguis vel subdiscretis, breve papillatis, sæpe annulo minuto corticali cinctis, fragilibus; ascis..... jam resorptis; sporidiis ellipsoideo-oblongis, fuligineis, 10–12 ≃ 5–5,5. 1429

Hab. in ramis putrescentibus, Pegu, Asia. — Descripsi sec. exemplaria a Cookeo benevole communicata. Perithecia $^1/_2$ mill. diam. Ad *Roselliniam* vergit.

II. *Placoxylum:* stromate late et vage effuso, subsuperficiali.

A) Stroma rubescens v. ochraceum, v. saltem non nigrum, pruina pallidiore obductum.

97. **Hypoxylon purpureum** Nits. Pyr. Germ. p. 37. Sacc. F. it. t. 571. — Stromate in ligno superficiali, late ac tenuiter effuso, ex fusco-purpureo tandem nigricante, peritheciis dense stipatis, minutis, globosis, prominulis, vertice rotundatis, poro perforatis mammilloso; hymenio conidifero pulveraceo-floccoso, primo pulchre virente deinde fulvo v. læte ochraceo, demum purpureo-fuscescente; conidiis minutis, obovatis in sterigmatibus longis, septatis, simpliciter v. sæpius verticillato-ramosis solitarie acrogenis; ascis cylindricis, longe pedicellatis, octosporis, paraphysibus simplicibus, tenuissimis 1430

obvallatis, 80–88 ≃ 6–7 p. sporif.; sporidiis monostichis, ovatis, inæquilateralibus v. subrectis, nigricantibus, 12 ≃ 5.

Hab. in truncis decorticatis Fagi sylvaticæ prop. Treviso, Italia bor., pr. Münster, Germania, socio *Dematio virescente* A. et S. (= *Botrytis geniculata* Corda?).

98. **Hypoxylon perforatum** (Schw.) Fr. Summ. Veg. Scand. pag. 384. 1431
Nits. Pyr. Germ. pag. 40. *Sph. perforata* Schwein. Syn. Carol. n. 45. — Stromate in ligno v. rarius in cortice superficiali, effuso maculiformi, brevi, immo subhemisphærico, crasso, contiguo, peritheciorum in stromatis superficie ceterum, sæpe omnino non discernibilium foraminibus minute cribroso-perforato, rubiginoso- v. purpureo-fusco, tandem nigricante sæpe confluente, hymenio conidifero, cinereo-albido, dilute rubescente, pulveraceo; conidiis minutissimis, ovoideo-subglobosis; sterigmatibus breviusculis, subsimplicibus v. ramosis septatis; peritheciis monostichis, stipatis, ovatis v. subglobosis mutuaque pressione haud raro compressis, nunc omnino immersis, nunc contra prominulis, ostiolis umbilicatis, hymenii reliquiis primo sæpe albido-pulverulentis, in stromatis superficie apertis; ascis longe pedicellatis, cylindricis, octosporis, paraphysibus tenerrimis, filiformibus simplicibus superatis, 60–90 ≃ 7–9 p. sporif.; sporidiis oblique monostichis, ovatis, utrinque obtusis, rarius acutiusculis, subrectis, v. inæquilateralibus, nigricantibus plerumque 12- rarius 10–14 ≃ 5–7.

Hab. in lignis putridis Betulæ, Corni, Arundinariæ, Bambusæ, Liquidambaris, Fagi, Salicis, Fraxini in America bor., India orient., Ceylon, nec non pr. Münster et Cappenberg Germaniæ.

99. **Hypoxylon miniatum** Cooke, Grev. VII, p. 80. — Effusum, irre- 1432
gulare, convexum, lateritio-brunneum; peritheciis connatis, ovoideis, leviter papillatis; stromate vivide aurantio-rubro; sporidiis late ellipsoideis, inæquilateralibus, 10 ≃ 5–6, brunneis.

Hab. in lignis decorticatis in Britannia. — Stromate miniato mox dignoscenda species,

100. **Hypoxylon atropurpureum** Fr. Summ. Veg. Scand. p. 384, Nits. 1433
Pyr. Germ. p. 48. Sacc. F. ital. t. 577. *Sphæria atropurpurea* Fr. S. M. II. 340, an Tode? — Stromate in ligno nigrificato longe lateque effuso, ambitu vario sæpeque interrupto, superficiali tenui, tamquam ex peritheciis, basi plerumque applanatis, vertice depresse rotundatis, prominulis, minutissime papillatis, majusculis, ordine sæpe irregulari connatis formato, primo purpureo-fusce-

scente, deinde atro, subnitido; ascis pedicellatis, cylindricis, octosporis, 52–62 ≃ 6–7 p. sporif.; sporidiis oblique monostichis, ovatis, utrinque acutiusculis, nonnihil inæquilateralibus v. subrectis, nigricantibus, 10–12 ≃ 5–6, 2-guttulatis.

Hab. ad ligna putrescentia Fagi, Aceris et Quercus. in Suecia, Gallia, Italia, Britannia, Java, Amer. bor.

101. **Hypoxylon rubiginosum** (Pers.) Fr. Summ. Veg. Scand. p. 384, Nits. Pyr. Germ. p. 38, Sacc. F. it. t. 574, *Sph. rubiginosa.* Pers. Syn. p. 11, *Rosellinia Delacourei* Fabr. Sph. Vaucl. p. 78 (teste auct.). — Stromate in ligno, rarius in cortice crassiore superficiali plerumque longe lateque effuso, v. brevius, maculiformi, læte ferrugineo-rubro, tandem nigricante, crassiusculo, peritheciis densissime atque irregulariter monostiche stipatis, obovatis v. subglobosis, majusculis, vertice rotundatis, pertusis, plus minus prominentibus, mammilloso; hymenio conidifero pulveraceo, tenui, initio sordide lutescente deinde læte rubiginoso; conidiis obovatis v. ovalibus, minimis in sterigmatibus parce ramosis, brevibus acrogenis; ascis cylindricis, longissime pedicellatis, octosporis, paraphysibus filiformibus, tenuissimis, simplicibus stipatis, 60 ≃ 6 p. sporif.; sporidiis monostichis, ovatis, inæquilateralibus v. subrectis, nigricantibus 10 ≃ 5. 1434

Hab. in ramis emortuis Fagi, Fraxini, Pruni, Quercus, Coryli, Salicis, Betulæ, Populi, Pini, Oreodaphnes, Aceris, Pyri, Tiliæ in tota fere Europa, California, Texas, Carolina, Ceylon, Java, Tauria, Algeria et Cuba.

102. **Hypoxylon hæmatostroma** Mont. Syll. Crypt. n. 737, Cuba p. 344. — Irregulariter effusum, confluens, convexum, purpurascenti-nigrum; peritheciis peripheriçis elongato-clavatis, immerso-prominulis, stromate sanguineo junctis, intus nucleo celluloso griseo farctis, tandem apice poro pertusis; sporidiis navicularibus, hinc gibbosis. 1435

Hab. ad cortices dejectos, Cuba (Ramon de la Sagra).

103. **Hypoxylon chrysoconium** B. et Br. Fungi of Ceyl. n. 1064. — Effusum, e mycelio albo, pulvere aurantiaco insperso, oriundum; peritheciis hemisphæricis, demum emergentibus, ostiolo prominulo; ascis linearibus; sporidiis 9 ≃ 5. 1436

Hab. in ligno putri, Central province, Ceylon. — Format crustas minutas secernibiles.

104. **Hypoxylon crocopeplum** B. et C. North Amer. Fungi n. 830. — Irregulare, depressum, pulvere crocino tectum; peritheciis prominulis, ostiolo minuto; sporidiis breve cymbiformibus, atro-fuligineis. 1437

Hab. in corticibus emortuis in Carolina inf. America boreali. — Stroma 12 mill. latum.

105. **Hypoxylon crocatum** Mont. Syll. Crypt. n. 735 et Fl. Chil. VII, p. 343. — Late effusum, tenue, planum, superficiale, pulvere (velo) croceo tectum; peritheciis oblongis vel obovatis vix prominulis, ostiolo minutissimo atro papillatis. 1438

Hab. ad lignum, Monte la Leona Chiles (Bertero).

106. **Hypoxylon trugodes** B. et Br. Fungi of Ceyl. n. 1073. — Effusum, pulvere vinoso hic illic transversim deficiente ornatum; peritheciis oblongis brevibus, sursum papillatis, hic illic undatis; sporidiis cymbiformibus, 7,6 μ. longis. 1439

Hab. in ligno putri in Ceylon. — Superficies stromatis, pulvere nuda, nitet. Initio *Reticulariam* fere æmulatur.

107. **Hypoxylon florideum** B. et C. North Amer. Fungi n. 833. — Effusum undulatum vinoso-pulverulentum; peritheciis abditis; ascis linearibus; sporidiis cymbæformibus, uninucleatis, 9–10 μ. longis. 1440

Hab. in Acere rubro, Carolin. infer. Amer. bor.

108. **Hypoxylon Morsei** B. et C. North Amer. Fungi n. 841. — Erumpens; peritheciis magnis congestis rubiginosis; ostiolo papillæformi; ascis linearibus; sporidiis oblongis, monostichis, 1–2-nucleatis, 25 ≃ 8. 1441

Hab. in ramis Alni, Sandlake, Center, New England, Maine (Amer. bor.). — Adest quoque forma stromatibus in crustas, 20–25 mill. extensas confluentibus.

109. **Hypoxylon anthochroum** B. et Br. Fungi of Ceyl. n. 1063. — Pulvinatum effusumque, pulverulentum, basi plerumque dilatatum, atropurpureum; contextu nigro; peritheciis prominulis; ostiolo papillæformi; sporidiis 10 μ. longis. 1442

Hab. in ligno putri, Ceylon.

110. **Hypoxylon subgilvum** B. et Br. Fungi of Ceyl. n. 1060. — Effusum, tenue, rubiginoso-pulveraceum; peritheciis subprominulis, ostiolo perforato minuto; sporidiis 10–13 ≃ 5–6. 1443

Hab. in corticibus, Ceylon. — Format stratum tenue, quod mox finditur et decorticatur, dein crassius fit. Habitus *H. corrugati*, sed superficies non corrugata.

111. **Hypoxylon epiphæum** B. et C. North Am. Fungi 843. — Peritheciis paucis connatis e maculâ rubiginosa oriundis; ostiolo papillæformi; ascis cylindraceo-clavulatis breve stipitatis, 72–75 ≃ 5–6, octosporis; sporidiis breviter cymbæformibus, inæqualibus, 7–8 ≃ 3–4, fuligineis, monostichis. 1444

Hab. in cortice Magnoliæ glaucæ Carolina infer. et New Jersey Americæ borealis.

112. **Hypoxylon jecorium** B. et Rav. North Amer. Fungi n. 832. — Effusum pulvere fulvo primum tectum ostiolis obscurioribus, demum jecorinum; ostiolis prominulis punctatum. 1445

Hab. in ligno Aceris rubri in Carol. infer. Amer. bor. — Adest quoque forma in Platano peritheciis magis prominulis.

113. **Hypoxylon fusco-purpureum** (Schw.) Berk. Cub. Fungi n. 835. *Sphœria fusco-purpurea* Schw. New Am. Sphær. t. II, f. 1, et in Linnæa IV, Litt. p. 48. — Late expansum, maculas varie effiguratas, monstrosas, margine sæpius steriles sistens, superficie purpureo-fuscum, interdum tomentellum, intus nigrum; peritheciis immersis, prominulis, hinc inde tubercula varia, grandi-granulata exerentibus, oblongo-ovoideis pluriseriatis, atronitentibus; sporidiis (teste Berk.) 12-13 μ. longis. 1146

Hab. in ligno molliori corticibusque, in quibus subsuperficiale sed non separabile, Sandlake, Bethlehem in Amer. bor. et in Cuba. — Matricem atroinquinat.

114. **Hypoxylon durissimum** (Schw.) Sacc. *Sph. durissima* Schw. Car. n. 46. Fr. S. M. II. 335, Curr. Comp. Sph. n. 29, fig. 29. — Effusum, irregulare, ligneum, rubiginosum, intus nigrum, peritheciis globosis immerso-peripheriçis; ascis cylindricis, stipitatis, octosporis; sporidiis elliptico-curvulis, 7,5-10 μ. longis, fuligineis, sæpe 1-guttatis. 1447

Hab. in cortice Cercidis canadensis in Carolina Amer. bor. — Affine *H. multiformi*, sed obscurius, stromate in ambitu lutescente, ostiolis minus papillatis etc.

B) Stroma nigricans v. initio fuscescens.

115. **Hypoxylon serpens** (Pers.) Fr. Summ. Veg. Scand. p. 384, saltem p. p., Nits. Pyr. Germ. p. 45, Sacc. Fungi it. t. 575, *Sph. serpens* Pers. Syn. p. 20, *Sph. Macula* Tode Meckl. II, f. 106. — Stromate in ligno, rarissime in cortice in crustam plerumque angustam ac sæpissime brevem, tenuem effuso, superficiali, forma varia, irregulari, plerumque longitudinaliter expanso, nunc ovali v. elliptico ac minuto nunc contra fere lineari, plus minus elongato, discreto, v. confluente, primo hymenio conidifero pulverulento cinereo vestito, deinde nudato, glabro, fusco-atro v. aterrimo, opaco; peritheciis subglobosis, densissime stipatis, majusculis, verticibus rotundatis v. rarius circa papillam mediam, exiguam nonnihil de- 1448

planatis, paullo tantum prominentibus et stromatis superficiem verruculosam efficientibus; conidiis subglobosis, minutissimis in sterigmatibus longiusculis, ramosis, septatis acrogenis; ascis cylindricis, longe pedicellatis, octosporis, paraphysibus filiformibus, stipatis, 75–100 ≃ 6–8 pars sporif.; sporidiis oblique monostichis, oblongis utrinque rotundatis, inæquilateralibus v. fere curvulis, rarius rectis, nigricantibus, 12–14 ≃ 5–6.

Hab. in ligno putri Salicis, Aceris, Fagi, Alni, Quercus, Celtidis, Populi, Coryli, Ailanthi, Oreodaphnes, Carpini etc. in tota Europa, Sibiria, Borneo, California, New Jersey, Alabama, Argentina.

116. **Hypoxylon Archeri** Berk. Fl. Tasm. II. p. 280. — Aterrimum; peritheciis subglobosis, truncatis, rugosiusculis, umbilicatis, ostiolo papillæformi; sporidiis brevibus, 10 ≃ 4–5, fuligineis. 1449

Hab. in ligno putri in Tasmania (Archer). — Ostiola in centro areolæ depressæ sita.

117. **Hypoxylon effusum** Nits. Pyr. Germ. p. 48. Sacc. F. ital. t. 572. — Stromate in ligno superficiali, longe lateque effuso, tenui, fusco-atro v. tandem aterrimo, lævi, nitido; peritheciis prominulis densissime stipatis, majusculis, subglobosis, vertice rotundatis v. sæpius depressis, disciformi-planis, medio papillatis; ascis cylindricis, pedicellatis, paraphysibus tenuissimis, simplicibus stipatis, 44–60 ≃ 5 p. sporif.; sporidiis monostichis, ovatis, utrinque obtusissimis, rectis v. nonnihil inæquilateralibus, fuscis, minimis, 6–8 ≃ 3–4. 1450

Hab. in ramis decorticatis corticatisque Salicis et Castaneæ pr. Coburg, Œstrich, Germaniæ et Padova Italiæ bor. — In exemplaribus italicis asci 50 ≃ 3,5; sporidia 5–5,5 ≃ 3. Toto habitu *Hypoxylo Archeri* accedit.

118. **Hypoxylon Sassafras** (Schw.) Berk. N. Amer. Fungi p. 162. *Sph. Sassafras* Schwein. Syn. Car. n. 10. — Erumpens, nigra, peritheciis paucis maximis, stromate fulvo-ferrugineo cinctis, ostiolis minimis deciduis; ascis .....; sporidiis oblongis, 20 μ. longis. 1451

Hab. in cortice Sassafras officinalis et Perseæ, Georgia, Carolina, Yonkers, Americæ borealis. — Intra rimas longitudinaliter effusum, demum ubi cortice orbatur dilatatum; perithecia pisi fere magnitudine, globosa, extus intusque atra; raro e mutua pressione varia, superne stromate tenui bicorticato tecta; ostiola minuta, distantia, decidua, unde superficies pertusa; occurrit etiam subsimplex.

119. **Hypoxylon stygium** (Lév.) Sacc. *Sphæria* (connata) *stygia* Lév. 1452

Ann. Scienc. nat. 5, 1846, pag. 258. — Stromate effuso applanato nigro, conceptaculis globosis immersis circa ostiolum papilliforme nitidum in orbem depressis; ascis parvis linearibus; sporidiis ovoideis, continuis, hyalinis (?).

Hab. in Guadelupa ad cortices, (Poiteau, herb. mus. Par.).

120. **Hypoxylon stigmateum** Cooke, Calif. Fungi in Grev. VII, p. 4. 1453
— Effusum, nigrum, incrustans, ex ostiolis prominulis papillosum; ascis linearibus; sporidiis lanceolatis, brunneis, 28 ≃ 8, rectis vel leniter curvulis.

Hab. in cortice putrescente quercino in California Americæ borealis.

121. **Hypoxylon vogesiacum** Pers. in Curr. Comp. Sphær. n. 64, t. 1454
XLVI, fig. 67-68. — Affine *Hypoxylo serpenti;* ascis.....; sporidiis prob. monostichis, ellipticis, inæquilateralibus, subinde pyriformibus, 17-20 ≃ 6-9, pallide brunneis, dein fuligineo-opacis, granulosis.

Hab. ad truncos emortuos Aceris Pseudoplatani in Vogesis (Moug. et Pers.) et in Italia (Ces. et De Not.). — Sec. Tul. (Cfr. Nits. Pyr. Germ. p. 35) esset mera forma *H. fusci,* sed Ces. et De Not. in Schema sfer. ital. distinguunt. *Sph. vogesiaca* in Roum. F. G. n. 249, ad *H. atro-purpureum* potius spectare mihi videtur.

122. **Hypoxylon fossulatum** Mont. Syll. Crypt. n. 743 et Guy., mss., 1455
n. 545. — Erumpens, longe lateque effusum; stromate carbonaceo, applanato, subundulato, atro-fusco, foveolato; peritheciis oblongo-ovoideis concoloribus, ostiolo in quaque fovea primo albo-pruinosa dein nuda punctiformi-prominulo, centrali.

Hab. ad cortices arborum, Cayenna (Leprieur).

123. **Hypoxylon oodes** B. et Br. Fungi of Ceyl. n. 1071. — Late ef- 1456
fusum, coffeicolor; peritheciis parce confluentibus globosis opacis; ostiolo papillæformi, annulo parvo impresso circumdato; ascis linearibus; sporidiis breviter subcymbiformibus, binucleatis, 12-13 ≃ 6,5.

Hab. in ligno putri, Central province, Ceylon.

124. **Hypoxylon epirrhodium** B. et Rav. North Amer. Fung. n. 840. 1457
— Effusum tenue, parvum, nigrum, ex ostiolis prominulis papillosum; ascis linearibus; sporidiis ellipticis, uniseriatis.

Hab. in ramis Rosarum Carolinæ infer., America boreali. — Crustæ 5 mill. lat.

125. **Hypoxylon Lenormandi** B. et C. Cuban Fungi n. 831. — Peri- 1458
theciis parvis, connatis, coffeato-pruinosis, ostiolo parum notato;

ascis linearibus; sporidiis uniseriatis, cymbiformibus, 25 μ. longis.

Hab. in ligno putri in Cuba, Tahiti.

126. **Hypoxylon fragile** Nits. Pyr. Germ. p. 39. — Stromate in ligno nigrificato superficiali, effuso, maculiformi, ex fusco tandem aterrimo, lævi, contiguo v. rimis diffracto atque areolato, e peritheciis densissime ac monostiche stipatis tamquam integro composito; perithecis ovatis mutuaque pressione angulatis, vertice liberis, circa porum medium sæpe deplanatis, immo impressis; ascis pedicellatis, cylindricis, octosporis, paraphysibus filiformibus, simplicibus obvallatis, 80 ≃ 7 p. sporif.; sporidiis oblique monostichis, ovatis v. late fusiformibus, utrinque acutiusculis v. obtusis, inæquilateralibus v. rarius subrectis, nigricantibus, 10–12 ≃ $4^1/_2$–6. 1459

Hab. in ligno putri salicino prope Münster, Germ. — *Hyp. purpureo* subaffine.

127. **Hypoxylon Broomeanum** B. et C. North Amer. Fungi n. 851. — Crassum, fuscum, marginatum, ostiolis punctatum; stromate fusco; peritheciis ostiolo excepto abditis; ascis linearibus; sporidiis ellipticis, monostichis. 1460

Hab. in lignis putrescentibus Carol. infer. Amer. bor. — Irregulare, 30 mill. lat. margine subelevato, 8 mill. cr. An *Nummularia?*

128. **Hypoxylon bicolor** B. et C. North Amer. Fungi n. 838. — Irregulare, undulatum, placentæforme, granulatum, intus niveum. 1461

Hab. ad Vermout Amer. bor. — Stroma 25–30 mill. lat., varie undulatum. Etsi sterile, prædistinctum.

129. **Hypoxylon subterraneum** Fuck. Symb. mycol. p. 235. — Peritheciis liberis, sparsis confluentibusque, magnitudine plerumque varia, *Rosellinicæ aquilæ* forma magnitudineque, sed vertice non applanatis, minute papillatis, nigris, stromati tenui, concolori insidentibus, subtilissime rugulosis; ascis cylindraceis, stipitatis, 8sporis; sporidiis monostichis, oblongo-ovatis, inæquilateralibus, monoplastis, fuscis 1–2guttulatis, 8 ≃ 4. 1462

Hab. in radicibus putridis muscosis Fagi, in Hallgarter Schirm, Rhenogovia. — *H. crustaceo* affine videtur.

130. **Hypoxylon crustaceum** (Sow.) Nits Pyr. Germ. p. 49. *Sph. crustacea* Sow. t. 372, fig. 11, *Sph. serpens* Fr, p. p. — Stromate in ligno, longe lateque nigrificato, superficiali, plus minus effuso, crassiusculo, fuligineo, opaco, interdum griseo-pruinoso, tamquam ex peritheciis connatis solum formato; peritheciis grandiusculis, exacte globosis, nunc dense stipatis, nunc contra laxiuscule confertis 1463

immo sæpe subliberis, vertice rotundato, libero, minute papillato, raro solito duplo minoribus; ascis cylindricis, longissime pedicellatis, octosporis, paraphysibus prælongis, filiformibus, obvallatis, 76–80 ≃ 6 p. sporif.; sporidiis oblique monostichis, ovatis, utrinque obtusis, inæquilateralibus v. subrectis, fuscis, 8–10 ≃ 4–5.

Hab. in ligno quercino et fagineo nec non in Polyporo resinoso putri prope Münster, Schwerin, Hattenheim (Germania) raro.

131. **Hypoxylon reticulatum** Karst. Myc. Fenn. II, pag. 43. *Sphæria* et *Hypoxylon crustaceum* Sow. et Nits p. parte. — Stromate superficiali, effuso, plerumque plus minus elongato, sublineari, reticulatim confluente, subinde crustam latam, forma varia, irregularem formante, fusco- v. fuligineo-atro, opaco, longit. 1–3 cent., lat. circiter 2 mill.; peritheciis dense stipatis subsphæroideis, verticibus rotundatis, paullo v. vix exstantibus, papilla perexigua instructis, majusculis; ascis cylindraceis, 65–76 ≃ 6–7 p. sporif., octosporis; sporidiis oblique monostichis, oblongatis v. subellipsoideis, interdum ovoideis, inæquilateralibus, 2-guttulatis, fuscis, 10–13 ≃ 5. 1464

Hab. in Polyporo pinicola indurato in Fennia, rarius, — Ab *H. crustaceo* forte haud satis diversum.

132. **Hypoxylon tormentosum** Ces. Myc. Born. p. 19. — Effuso, tenui, subareolato, peritheciis ovatis v. conoideis vertice emergentibus, ostiolo acutiuscolo, sed omnino carbonaceis sterilescentibus; colore, compage, toto habitu *H. serpentis* æmulum a quo, quoad characteres exteriores, peritheciis ex dimidio emergentibus acute ostiolatis differt. 1465

Hab. ad Sarawak Bornei, in truncis.

133. **Hypoxylon Phænix** (Fr.) Berk. et Curt. Exot. Fung. Schwein. p. 287, t. XXV, fig. 7. *Sphæria Phœnix* Kunze et Fr. Linnæa 1830, p. 541. — Stromate subcarnoso extus umbrino intus albo; peritheciis mediis, globosis, centro papillatis semi-prominulis nigris umbrino-velatis; ascis linearibus; sporidiis ellipsoideis, utrinque acutiusculis, atro-fuligineis, 20–22 μ. longis. 1466

Hab. in radicibus graminum combustis, Surinam (Amer. austr.), — Accedit ad *Roselliniam subiculatam*, sed mollius fere hypocreaceoides.

134. **Hypoxylon bipapillatum** Berk. et Curt. Exot. Fungi Schwein p. 286. — Effusum, connatum, nitidum, intus pallidum; peritheciis globosis sursum prominulis et prominentias latiusculas efficientibus; ostiolo papillæformi. 1467

Hab. in lignis putridis Surinam (Amer. austr.). — Subaffine *H. lucido* Mont., sed minus nitidum, et elevationes minus latæ.

135. **Hypoxylon? arecarium** Bory, Fr. in Linnæa 1830, p. 543 (sub Sphæria). — Effusum, applanatum, crassiusculum, rigidum; perithecis stipatis linearibus, ostiolis demum cingulo albo cinctis. 1468

Hab. in ligno Palmarum emortuo, Insul. Bourbon (Bory).

136. **Hypoxylon gregale** (Schw.) Berk. N. Am. Fungi in Grev. *Sph.* (connatæ) *gregalis* Schw. Syn. Am. bor. n. 1211. — Late effusum super crustam inæquabilem et nigrofuscescentem; perithecis tamen majusculis valde prominulis quasi applanato-convexis, ex approximatione varie compressis, crusta tenui connexis, nigrofuscis, primum papillatis demum pertusis, papilla decidua, superficie rugosis, stromati rubro-fusco aut nigro simplici seriatim insertis. 1469

Hab. raro in Carolina in ligno udo molli. — Sporidia, sec. Berk. anguste oblonga, 12–14 μ. longa, (spurie?) 1-septata; perithecia destructa et diffracta sæpe dimidiata manent in crusta.

137. **Hypoxylon investiens** (Schw.) Berk. Cub. n. 837. *Sph.* (connatæ) *investiens* Schw. Syn. Am. bor. n. 1210. — Crusta atra, tenui, in ambitu sterili longe lateque lignum atrotingente, pallio granuloso aterrimo, sensim in crustam abeunte; peritheciis dense stipatis, regulariter oblongis, ad basin stromatis parcissimi et tantum superne perceptibilis penetrantibus; in superficie externa, rugulosa, subconice elevatis, ostiolo papillato deciduo præditis. 1470

Hab. in lignis non duris, exsiccatis, decorticatis, Bethlehem, Salem, Texas et Cuba. — *Hyp. fuscopurpureo* affine. Plagas sistit 2–3 unciales.

138. **Hypoxylon hydnicolum** (Schw.) Sacc. *Sph. hydnicola* Schw. New. Amer. Sphær. t. II, f. 9 et in Linnæa IV, Litt. p. 47. — Undulatum, effiguratum, crassum, breve, elevatum, subinde confluens, extus atro-corticatum, granulosum inque tubercula elevatum, intus album; perithecis immersis, globosis, nigris, ostiolis prominentibus. 1471

Hgb. in subulis Hydni emortui substantiam ejus sæpe penetrans. Proximum *H. confluenti* et *udo*. — Tubercula 3–4 mill. cr.

139. **Hypoxylon callostroma** (Schw.) Berk. North Am. Fung. in Grev. *Sph. callostroma* Schw. New Am. Sphær. t. II, f. 10 et in Linnæa, IV, Litt. p. 48. — Late expansum, maculas irregulares 30–50 mill. longas sistens, extus nigrum, corticatum, intus viride rubro-ochraceum, crasso-pulverulentum; perithecis confertis globosis, atris, apice truncatis, ostiolo conico obtuso, leniter elevato; sporidiis (teste Berk.) oblongis, 10 μ. long. 1472

Hab. in cortice emortuo Coryli, Benzoin, Prini in Pensylvania, Alabama etc. Americæ borealis.

140. **Hypoxylon macrosporum** Karst. Enum. Fung. Lapp. p. 211 et Myc. Fenn. II, p. 40. — Stromate per peridermium erumpente, ab laciniis ejus cincto, tandem libero, superficiali, effuso, forma varia, plerumque longitudinaliter expanso, lineari, plus minus elongato, contiguo, discreto vel confluente, atro, intus fusco, long. circiter 2–4 cent., 2–10 mill. lat.; peritheciis densissime monostiche stipatis, obovoideis vel subsphæroideis, vertice rotundatis vel truncato-subconice coarctatis, plus minus prominulis, pertusis, minutis; ascis pedicellatis octosporis; sporidiis oblongatis vel fusoideo-subelongatis, 2–3-guttulatis, fuscis, vix translucidis, rectis v. inæquilateralibus, 24–37 ≃ 8–13. — Hymenium conidiferum cinereo-albidum. 1473

Hab. in ligno salicino juxta mare glaciale in Fennia.

141. **Hypoxylon concurrens** B. et C. North Amer. Fungi n. 845. — Peritheciis minutis confluentibus, sursum tantum denudatis, minutissime granulatis; ostiolo minuto, papillæformi; sporidiis breve cymbiformibus, 1-nucleatis. 1474

Hab. in lignis in Carolina infer. Amer. bor. — Format stratum granulatum, nigrum, semiemersum.

142. **Hypoxylon umbrino-velatum** B. et C. Cuban Fungi n. 834. — Peritheciis subhemisphæricis, subapplanatis, circa ostiolum papillæforme leviter depressis, umbrino-velatis, parce confluentibus; sporidiis magnis cymbiformibus, 40–42 μ. longis. 1475

Hab. in lignis putridis in Cuba.

143. **Hypoxylon unitum** Nits. Pyr. Germ. p. 44, Fungi ital. t. 578, *Sph. unita* Fr. Elench. II, 67. — Stromate in ligno v. in cortice, plerumque longe lateque nigrificato superficiali, effuso, contiguo, brevi, maculæformi, tenui v. rarius tumidulo, ex fuligineo v. purpureo-nigro tandem aterrimo, peritheciis vix extantibus læviusculo, ostiolis minimis, prominulis puncticulato; hymenio conidifero pulcherrime aureo, rubescente, floccoso; sterigmatibus longiusculis, ramosis; conidiis ovatis, exiguis; peritheciis majusculis globosis, v. compressis, subcubicis, monostichis, stromati omnino immersis v. parum tantum protuberantibus, semper autem stromatis strato supremo, continuo tectis atque conjunctis, ostiolis papillæformibus; ascis cylindricis, longe pedicellatis, octosporis, paraphysibus tenuissimis, simplicibus longe superatis, 80–100 ≃ 8 p. sporif.; sporidiis monostichis, ovatis subrectis v. inæquilateralibus, obtusis v. acutiusculis, nigricantibus, 12–16- plerumque 14 ≃ 5–6, 1476

Hab. in ligno et cortice Coryli, Alni etc. in Gallia, Germania et Italia.

144. **Hypoxylon colliculosum** (Schw.) Nits. Pyr. Germ. p. 44, *Sph. colliculosa* Schw. Syn. Carol. n. 82, Fr. S. M. II, 341. — Effusum, tenue, colliculosum, rugosum, nigrum, peritheciis maximis crusta tectis, ostiolis minutis papillatis. 1477

Hab. in truncis Quercus in Vogesis et in Carolina. — Sec. Nits. l. c. differt ab *H. unilo* ostiolis in medio areolæ depressæ sitis. — Præcedentibus maxime affine, sed perithecia majora, irregularia, fragilia, basi applanata (non ligno immersa v. linea ambiente cincta) subdistantia, sed stromate tenui suffuso cohærentia. Maculas sistit margine variàs, nitore quasi oleoso, superficie valde inæquali, rimosa.

145. **Hypoxylon murcidum** B. et Br. Fungi of Ceylon n. 1077. — Late effusum; peritheciis oblongis in strato fusco, pulverulento insidentibus; ostiolo papillæformi. 1478

Hab. in ligno putri, Central province, Ceylon.

146. **Hypoxylon polyspermum** Mont. Syll. Crypt. n. 736 et Cuba p. 345. — Effusum, convexum, crassum, subtus applanatum; stromate crustaceo atro rigido fragili secedente; peritheciis immersis stipatis linearibus, mollibus stromate, parco, fusco, junctis, ostiolis punctiformibus annulo prominulo marginatis; ascis subhorizontalibus octosporis lineari-subclavatis, sporidia oblonga, opaca, uniserialia foventibus. 1479

Hab. ad cortices et ligna, S. Marcos insulæ Cubæ (Ramon de la Sagra).

147. **Hypoxylon allantoideum** Cooke N. Zeal. Fungi in Grevill. VIII, p. 66. — Parallelum, convexo-planum, atrum, elongatum, utrinque truncatum; ostiolis punctiformibus; intus fuligineo-atris; ascis cylindraceis; sporidiis anguste ellipticis, continuis, atro-brunneis, 12–14 ≃ 4,5. 1480

Hab. in ligno denudato Waitaki Novæ Zelandiæ.

148. **Hypoxylon approximans** Ces. Myc. Born. p. 18. — Ab *H. serpente* cui valde affine differt quia minus, simplicius, tuberculis magis applanatis sessilibusque, ostiolis minime exertis; ascis 90–100 μ. longis; sporidiis uniseriatis spadiceis, irregulariter lanceolatis, obscure binucleatis, 1481

Hab. Singapore, Sarawak ad Etich-River, ad cortices vetustos.

149. **Hypoxylon Michelianum** Ces. et De Not. Schm. Sfer. 25 et Sfer. ital. p. 16, tab. 13, *Lichen-agaricus crustaceus* etc. Mich. Nov. 1482

Plant. gen. 104, tab. 55, fig. 1. — Stromate in ligno superficiali, longe lateque effuso, atro, levi, opaco; peritheciis densissime stipatis, grandiusculis subglobosis v. mutua pressione angulatis, vertice rotundatis, liberis, prominulis, circa papillam minutissimam impressis; ascis longe pedicellatis, cylindricis, octosporis, paraphysibus tenuissimis, filiformibus simplicibusque stipatis, 88–100 ≃ 8 p. sporif.; sporidiis monostichis, late fusiformibus, utrinque acutiusculis, rectis v. plus minus inæquilateralibus, fuscis, 16 ≃ 5–6.

Hab. in basi truncorum emortuorum Lauri nobilis, Pisa, Treviso (Ital. media et sup.).

150. **Hypoxylon bifrons** De Not. Sfer. ital. p. 18, t. 16. Sacc. Fungi ital. tab. 579. — Stromate effuso, subspongioso, tenui, superficie crustaceo-corticato, scabro, fusco-atro, perithecia majuscula, discreta, pustulæformi-protuberantia excipiens; peritheciis 1,1½, 2 mill. diametro, medullæ stromatis ipsius basi insidentibus, discretis, rarius geminatis, tota parte superiore emergente velo grumoso læte aurantiaco intercedente, strato superficiali crustaceo stromatis obtectis, verrucas hemisphæricas, atras, scabridas, astomas in cubilium superficie portendentibus, speciem simplicem facile mentientibus; ascis, teretibus, 8-sporis, paraphysatis; sporidiis ellipsoideis, oblongis, 20–25 μ. long. dilute fuligineis, translucidis. 1483

Hab. in ramis Lauri nobilis Locarno Ital. bor. (Daldini). Romæ (Bagni).

151. **Hypoxylon æneum** Nits Pyr. Germ. p. 47. — Stromate in ligno denudato v. in cortice crassiore immaculato superficiali, effuso, tenui, margine plerumque sterili, æneo, nitido, peritheciis exiguis, globosis, papillatis, dense stipatis, prominentibus tuberculoso; hymenio conidifero virescenti-cinereo, pulveraceo; conidiis subglobosis, minimis, in sterigmatibus longiusculis, simpliciter v. apice verticillato-ramosis, septatis acrogenis; ascis cylindricis, longe pedicellatis, octosporis, paraphysibus tenerrimis, simplicibus, eseptatis superatis, 124–140 ≃ 9–10 p. sporif.; sporidiis oblique monostichis, ellipticis, obtusis, inæquilateralibus v. rectis, fuscis, 20–24 ≃ 7–8. 1484

Hab. in ligno fagineo, coryleo, quercino, pr. Münster et Schwerin Germaniæ. — Stromata 1–4 cent. longa, 2–10 mill. lata.

III. *Endoxylon* Nits.: stromate matrice plus v. minus immerso, nigricante.

152. **Hypoxylon udum** (Pers.) Fr. Summ. Veg. Scand. p. 384. Nits. Pyr. Germ. p. 52. *Sph. uda* Pers. Syn. 33. *Sph. confluens* Tode Meckl. p. 19, *Sph. albicans* Pers. Syn. 70, *Sph. ordinata* Fr. S. M. II. 1485

454. *Sph. lineata.* DC. — Stromate ligno, rarius cortice crassiori immerso, forma varia, irregulari, plerumque elongato, perithecia perpauca tantum v. plura (2–30) cingente, raro plus minus emerso v. denudato, verruciformi, ex brunneo tandem aterrimo; hymenio conidifero floccoso, ex albido cinerascente; conidiis subglobosis v. obovatis, minimis in sterigmatibus ramosis solitarie acrogenis; peritheciis minutis, subglobosis, papillatis v. papillis tantum v. ipsis plus minus prominulis; ascis longissimis, 150 ≃ 15 cylindricis, pedicellatis, paraphysibus prælongis immixtis; sporidiis recte v. oblique monostichis, oblongis v. subcylindricis, obtusisimis, raro obtuse fusiformibus, rectis v. nonnihil inæquilateralibus, ex hyalino tandem fuscescentibus, 28–30 ≃ 10–11.

Hab. ad ligna arida Quercus, Fagi, Coryli, Populi in Britannia, Germania, Belgio, Fennia, Gallia, Suecia, Italia, India orient. et Borneo. — Spermogonia (sec. Fuck.) peritheciis ascigeris multo minora; spermatiis allantoideis 6–8 ≃ 2–3, hyalinis.

153. **Hypoxylon minutum** Nits. Pyr. Germ. p. 54. *Sphæria confluens* 1486
Fr. S. M. II, 342 (ut videtur p. p.). — Peritheciis minutis, globosis, vertice conico-attenuato, minutissime papillato emersis, ceterum ligno superficie immaculato v. dealbato ac fungi stromate, omnino immerso, parum tantum mutato insculptis, binis ternisve in seriem simplicem, linearem brevem confluentibus, rarius pluribus (–6), ordine vario conglomeratis v. solitariis, primum brunneis, mox autem aterrimis, opacis; hymenio conidifero albido, byssino, cæspitulum juniorem vestiente; conidiis ovato-subglobosis, exiguis; sterigmatibus longis septatis, ramosis; ascis cylindricis pedicellatis, octosporis, paraphysibus filiformibus, obvallatis, 72–80 ≃ 8; sporidiis monostichis, ovalibus v. fere globosis, rectis, fuscescentibus, 10 ≃ 6–7.

Hab. in ligno putri quercino prope Münster, Germania. — Stromata 2–5 mill. longa.

154. **Hypoxylon semiimmersum** Nits. Pyr. Germ. p. 50 *Sphæria uda* 1487
Auct. p. p. — Peritheciis paucis stromate brevi, basi solum ligno immerso conjunctis, tractu lineari, simplici v. sine ordine gregatim dispositis, parte superiore protuberantibus, tamquam confluentibus v. subliberis, grandiusculis, globosis, apice sæpius depressis, fusco-nigris, tandem aterrimis, papillatis; hymenio conidifero albido, tenuissimo, byssino; conidiis obtuse ellipticis v. subcylindricis, minutis; ascis cylindricis, pedicellatis, octosporis, paraphysibus filiformibus superatis, 120–140 ≃ 10–12 p. sporif.; sporidiis oblique

monostichis, late ellipticis, utrinque acutiusculis, rectis v. parum inæquilateralibus, ex hyalino tandem obscure fuscis, 16–18 ≃ 8–9.

Hab. in ligno duriore fagineo pr. Münster, Œstrich Germaniæ et in ligno putri Novæ Zelandiæ.

IV. *Cœnopus:* stromate, effuso supra tuberculoso v. subfruticuloso. (Ad *Xylariam* vergit; cfr. *Xylaria digitata* v. *dubia*, *Xyl. Puiggarii* etc.).

155. **Hypoxylon cœnopus** (Fr.) Mont. Cub. p. 341. *Sphæria cœnopus* Fr. in Linnæa 1830, vol. V. p. 542. — Nigrum, tuberculis planis deorsum angustatis substipitatis in crustam undulatam stipatis; peritheciis subimmersis; ostiolis punctiformibus; ascis .....; sporidiis 10 μ. longis (teste Berk.). 1488

Hab. ad cortices et ligna putrescentia in Cuba, Surinamo, Ceylon, Brasilia, Borneo. — Perithecia in singulo tuberculo pauca, magna, ovoidea. Adest v. *apoda* et var. *major* (Brasilia).

156. **Hypoxylon cetrarioides** Welw. et Curr. Fungi Angol. p. 282, tab. 18, fig. 5-6. — Stromate decumbente, laciniato, habitu et crescendi modo *Cetrariam tristem* simulante; laciniis dilatatis, multifidis, apicem versus in perithecia transeuntibus; peritheciis dense aggregatis aliquando complanatis, irregularibus, plurima ostiola præstantibus; sporidiis 1489

Hab. ad truncos magnos putrescentes in sylvis primitivis prope Quilanga, Pungo Andongo, Quibolo, Golungo alto (Africa occ.). — Species pulchella *H. cœnopodi* subaffinis.

157. **Hypoxylon xylarioides** Speg. Fung. Arg. I, p. 179. — Stromatibus parvulis, 2–4 mill. d., globosis v. depressis, densiuscule gregariis, numquam vel rarissime confluentibus, intus albis extus atris, gibbulosis, sessilibus vel stipite 1–3 mill. long. $^1/_4$–$^3/_4$ crass. lateraliter compresso, lævi, glabro, atro fultis; peritheciis paucis in eodem stromate 18–24 gregariis, minutis $^1/_2$–$^1/_4$ mill. non vel vix prominulis ostiolo minutissimo, vix sub microscopio perspicuo, perforatis, atris; ascis cylindraceo-clavatis sursum acutiuscule rotundatis deorsum in stipitem longiusculum desinentibus, p. sporif. 70–75 ≃ 12–15; stip. 30–35 ≃ 5, octosporis, paraphysibus filiformibus, guttulatis longioribus obvallatis; sporidiis oblique monostichis rarius distichis, elliptico-subnavicularibus, primo 1-magni-guttatis, opace fuligineis, 16–18 ≃ 8–9. 1490

Hab. in caulibus dejectis putrescentibus Jussieuæ (?) in paludosis secus Rio de la Plata a la Recoleta, Argent. Amer. Austr.

— Species dubia inter genus *Xylaria* et genus *Xypoxylon;* huic vero propius accedit ob stromata sæpius stipite carentia.

158. **Hypoxylon micropus** (Fr.) Sacc. *Sphæria micropus* Fr. in Linnæa 1830, p. 542. — Nigra; peritheciis stipatis ovali-oblongis, apice liberis conico-papillatis, deorsum stipitato-productis, basi stromate effuso conjunctis; ascis.....; sporidiis cymbiformibus 30–38 ≃ 9–12. 1491

Hab. ad truncos et ligna arborum in Brasilia, Borneo, Cuba, Peradenya Ceylon. — Adest quoque forma pycnidica.

159. **Hypoxylon Colensoi** Berk. in Hooker Handb. of N. Zeal. Fl. p. 756. — Stromate e densis clavatis massulis constante, extus atropiceo, intus sæpe stratoso, rugoso, punctato; peritheciis oblongis. 1492

Hab. in truncis, Northern Island, N. Zeland. (Colenso). — *X. cœnopodi* affine etsi exemplaria imperfecta observata.

160. **Hypoxylon teres** (Schw.) Sacc. *Sph. teres* Schw. New Am. Sphær. p. 10, t. II, f. 7. — Subtereti-cylindricum, apice obtuse rotundatum, superficiale, sparsum, extus rubiginosum; prominentiis, vix elevatis sed latiusculis rugosum, intus fuligineo-nigrum, substratosum; peritheciis immerso-protuberantibus, majusculis, confertis. 1493

Hab. in cortice ignoto in Amer. boreali. — Tota planta 7–8 mill. alta, $2^1/_2$ cr. Quodam modo *H. rubiginoso* affine.

161. **Hypoxylon glebulosum** Ces. Myc. Born. p. 17. — Stromatis effusi vix vestigium; tuberculis stipatis et stipitellatis, a grani cannabini ad pisi magnitudinem, umbrinis, levibus, glebulosis e peritheciis amplis globosis protundentibus; ostiolis e conica basi punctiformibus nitidis; ascis anguste clavatis 70 μ. longis; sporidiis octonis, biseriatim dispositis, lanceolatis, asymmetricis, interdum curvulis, opacis, 30-32 ≃ 7,5; tuberculorum substantia alutaceo-albida; stipitello haud raro obsoleto. 1494

Hab. ad truncos Ceylon ad Pedrotallagalla. — Nonnullis notis ad *H. cœnopodem* et ad *Kretschmariam Clavum* vergit (Cesati).

X. Species desciscentes v. dubiæ.

162. **Hypoxylon palmigena** B. et C. Cuban Fungi n. 32. — Effusum; peritheciis depressis, furfuraceo-subtomentosis, rugosis, nigris in glomerulos parvos congestis, ostiolo papillæformi; sporidiis hyalinis, gibbosis 15–20 μ. longis. 1495

Hab. in foliis Palmarum, interdum cum *Meliola glabra,* Cuba. — Perithecia 5–6 in quoque soro.

163. **Hypoxylon? Ravenelii** Sacc., *Hyp. erinaceum* B. et Rav. North 1496

Amer. Fungi n. 850, nec Mont. — Peritheciis ovatis, connatis pulverulentis, collo elongato; sporidiis clavatis, infra attenuatis.

Hab. in trunco Liquidambaris in Carol. inf., Amer. bor. — Vere curiosum et ex brevissima diagnosi vix hujus generis.

164. **Hypoxylon erinaceum** Mont. Syll. Crypt. n. 726 et Cent. II, n. 47, in Ann., l. c., p. 356. — Erumpens, convexo-pulvinatum, colliculosum, confluens, tomento cinereo-fuscescente vestitum, intus corneum; peritheciis ovoideis oblongisve polystichis prominentibus, evacuatis intus albis, ostiolis exsertis teretibus lævibus, longissimis, flexuoso-divergentibus atris; ascis brevissimis clavæformibus, sporidia globosa 6-8 hyalina includentibus. 1497

Hab. ad truncos dejectos in sylvis Sinnamariensibus (Leprieur). — Species abnormis vix hujus loci. An *Cryptosporellæ* affinior?

165. **Hypoxylon allantosporum** B. et C. Cuban Fungi n. 836. — Effusum; peritheciis parvis innumeris dense catervatis obovatis fuscis; ostiolo papillato; sporidiis allantiformibus, magnis, 50 μ. longis. 1498

Hab. in cortice putrescente in Cuba.

166. **Hypoxylon lobatum** (Fr.) Sacc. *Sphæria lobata* S. M. II, 343. — Atrum, stromate crustæformi tenui, ramoso-lobato; peritheciis connatis globosis, pertusis. 1499

Hab. in cortice Pini sylvestris in Kamtschatka (Wormsk.). — Species elegans. Crusta plane superficialis, effusa, effigurata, opaca, atra, sæpe ramosa et lobata, inæquabilis. Perithecia nuda, connata, lævia, opaca, semine Sinapeos minora, non e crusta emergentia. Crusta numquam, vel rarissime, deest.

167. **Hypoxylon Uraniæ** Mont. Syll. Crypt. n. 721 et Cent. IV, n. 91, in Ann., Déc. 1843 (sub *Sphæria*). — Stromate carnoso, orbiculari, basi coarctato, disco plano, atro-virente; peritheciis perithericis globosis monostichis immersis atris, in collum attenuatis; ostiolis prominentibus, atro-nitentibus. 1500

Hab. ad folia Uraniæ guyanensis, in consortio *Meliolæ Musæ*, Surinam (Splitgerber). — An *Hypocreæ* species?

168. **Hypoxylon exertum** Fr. Elench. II, 65 (*Sph. exserta*). — Subrotundum, depressum, demum late confluens, atrum, stromate crasso pulveraceo-fuliginoso; peritheciis superficialibus minutis pertusis. 1501

Hab. ad cortices arborum in Helvetia (Schleicher). — Primitus per epidermidem erumpentis apparent tubercula valde inæquabilia, opaca, atra, mox superficialia evadunt, *H. fusco* subsimilia, hemisphærica, subdepressa, dein late supra epidermidem effusa, in plagas latas interruptas confluunt, magis liberata. Stroma quoque cras-

sum et omnino proprium, pulveraceum, primo olivaceum, dein fuliginosum, cortice tectum peritheciophoro. Perithecia cortici stromatis adnata, pæne superficialia, stipata, at non confluentia, minuta, subglobosa, lævia, atra, raro papillata, sæpius pertusa.

169. **Hypoylon afflatum** Schwein. Syn. Carol. n. 68. (*Sph. afflata*) 1502
Effusum, tenuissimum, effiguratum, nigerrimum, peritheciis confertissimis, minimis prominulis dense punctatum.

Hab. in lignis siccis Carolinæ Amer. bor. — Omnium hujus seriei specierum tenuissima, maculas atramentosas opacas variæ figuræ et sæpius lobatas exhibens, ligno quasi afflata (nullo modo immersa), uti mappa geographica effigurata; perithecia minima superficialia, stipatissima, plane concreta stroma sistunt.

170. **Hypoxylon atramentosum** Fr. S. M. II. 344. (*Sph. atramentosa*) 1503
Sph. insidens Schwein. in litt. — Atrum, peritheciis confertis hemisphæricis lævibus subastromis, e stromate crustaceo tenui inæquabili nigro prominulis.

Hab. in asseribus et ligno decorticato Mali in Suecia et America bor. — Crescendi modus maculæformis omnino *H. rubiginosi*, sed minus et perithecia prominent omnino ut in ejus ætate vetusta, in ambitu sterile; perithecia perexigua.

171. **Hypoxylon incrustans** (Pers.) Mont. Ann. Sc. nat. 1855, III. 119. 1504
Sph. incrustans Pers. Syn. p. 62 et Fr. S. M. II. 343. — Crusta effusa nigra; peritheciis subrotundis rugosis, subconfluentibus, atris, ostiolis crassiusculis conicis obtusis.

Hab. ad truncos populinos, acerinos in Gallia et Germania. — Crusta late effusa, contigua, indeterminata, glabra, tenuis, aterrima, etiam supra cortices superficialis; perithecia ampla, superficialia, rugosa, nunc solitaria, nunc omnino connata, extus intusque atra; pro more bicorticata, exteriori in crustam extenso; ostiola perforata, demum decidua.

172. **Hypoxylon transversum** (Schw.) Sacc. *Sph.* (Hypoxyl.) *transversa* 1505
Schw. Syn. Am. bor. n. 1180. — Magnum, subpulvinatum, cortice subimmersum et pulvinatum prorumpens, difformiter aut turbinatim angulatum, superficie irregulariter rugosum aut æquabile, nigrum; peritheciis ovatis, periphæricis, intus splendenti-nigris; stromate nigro-fusco pulverulento; ostiolis manifestis prominentibus plano-conicis.

Hab. in trunco Betulæ carpinifoliæ rarius, Mauch, Chunk, America borealis. — Stromata transverse erumpentia unciam longa, $^1/_4$ unc. crassa.

173. **Hypoxylon exaratum** (Sckw.) Sacc. *Sph.* (Hypoxyl.) *exarata* Schw. Syn. Am. bor. n. 1206. — Effiguratim effusum, longitudinaliter sulcis profundis parallelis in superficie exaratum, primum epidermide (in sulcis persistente) subtectum; peritheciis valde prominulis in summis jugis sulcorum, irregularibus, nigrofuscis, nigropapillatis, majusculis, monostichis, stromate parco circumdatis; sulcis subinde confluentibus. 1506

Hab. in cortice ramorum juniorum Juglandis tomentosæ, Salem et Bethlehem, Amer. bor. — Stromata margine sterili subrepando instructa; crustæ subjacenti, ex substantia corticali nigrificata formata, insident.

174. **Hypoxylon xanthostroma** (Schw.) Sacc. *Sph.* (Hypoxyl.) *xanthostroma* Schw. Syn. Am. bor. n. 1212. — Insidens crustæ tenui nullimodo effusæ; tuberculis serie simplici valde elevatis difformibus, subconfluentibus, fusco-nigris, vix ostiolatis, majoribus mixtis minoribus in eodem cæspite; peritheciis singulis vel pluribus in eodem tuberculo, majusculis, globosis, omnino immersis in stromate lutescenti, grumosis. 1507

Hab. seriatim erumpens e rimis ramorum decorticatorum Quercus, Bethlehem, Amer. bor. — Tubercula extus nigra; passim ad uncialem longitudinem protracta est series.

175. **Hypoxylon sphæriostomum** (Schw.) Sacc. *Sph.* (Hypoxyl.) *sphæriostoma* Schw. Syn. Am. bor. n. 1213. — Breve, subpulvinatum, carbonaceum, aterrimum, 2–3 lineas longum, oblongum, utrinque acuminatum, superficie externa longitudinaliter striatum; ostiolis sphæriomorphis, sparsis, globosis, ore rotundo pertusis, ductu longiusculo connexis cum peritheciis internis, ipso ligno immersis, absque ullo stromate genuino, tamen externo cortici communi tenerrimo superficiali nigro tectis; peritheciis ipsis majusculis et massa atra repletis, ovatis. 1508

Hab. in ligno carioso emollito rarius, Bethlehem Amer. bor. — Nucleus peritheciorum, sub lente augentissima, ex sporidiis fere *Melanconiorum* constat.

176. **Hypoxylon Catalpæ** (Schw.) Sacc. *Sph.* (Hypoxyl.) *Catalpæ* Schw. Syn. Am. bor. n. 1214. — Seriatim e rimis corticis erumpens, primum rubiginosum, demum nigrum; cæspitulis aut potius pulvinulis longitudinaliter confluentibus; cortice externo subtenui superficie a subjacentibus peritheciis granuloso rubiginoso, quasi pulverulento, demum nigro rugoso; peritheciis crebris, stromate parco nigro; primum ostiolis papillatis, tum pertusis, ostiolis nempe deciduis. 1509

Hab. in cortice Catalpæ non raro, Bethlehem, sed plerumque statu subexoleto obvium. — Multam habet affinitatem cum *H. multiformi*, sed minus nec effusum.

177. **Hypoxylon Caries** (Schw.) Sacc. *Sph.* (Glebosæ) *Caries* Schw. 1510
Syn. Am. bor. n. 1222. — Vix separabile, subrotundum aut elongatim effusum, crassiusculum, ambitu sublobato, aterrimum, superficie undulatim inæquali, rugosa; ostiolis crebris, obtuse conicis, demum pertusis; peritheciis majusculis, subdepressis, in stromate parco nigrescente.

Hab. in lignis cariosis, Bethlehem Amer. bor. — *Hypoxylon serpens* primo adspectu referens nec dissimile ab *Ustulina*. Longitudo stromatum semi- aut uncialis.

178. **Hypoxylon illitum** (Schw.) Sacc. *Sph.* (Hypoxyl.) *illita* Schw, Syn. 1511
Am. bor. n. 1205. — Latissime effusum, confluens, stratis sæpe superimpositis, sistens plagas subeffiguratas, ligno emollito quasi illitas; superficie undulata inæquabili, primum eleganter olivaceo virente, demum nigra; peritheciis majusculis, granulatim prominentibus; ostiolis acutis, conicis aut indistinctis coronatis; ceterum crasse corticatis, intus cavis e stromate parco albescente circumdatis.

Hab. non infrequens ad latera perpendicularia truncorum præsertim Platani, quos plagis latis inæqualibus confluentibus investit, Bethlehem in America boreali.

179. **Hypoxylon cupreum** Fr. Summa V. S. p. 384. In Suecia merid. 1512

180. **Hypoxylon stereoides** Fr. S. V. S. p. 384. In Finlandia. 1513

181. **Hypoxylon omphalostoma** Fr. S. V. S. p. 384. In Suecia boreali. 1514

Hæ tres species nomine tantum notæ sunt.

DALDINIA De Not. et Ces. Schema Sfer. ital. in Comm. Critt. I. 197. (Etym. a cl. Abb. *Daldini* Locarnensi). — Stroma superficiale, subsphæroideum, cortice carbonaceo, nigricante, intus fibrosum, concentrice discolori-zonatum. Asci cylindracei, octospori, pedicellati. Sporidia ovoidea v. oblonga, fusca. Perithecia stromati omnino immersa nec protuberantia; ostiolis umbilicatis.

1. **Daldinia concentrica** (Bolt.) Ces. et De Not. Schema Sf. it. in Comm. 1515
I, 198. *Hy. concentricum* (Bolt.) Grev. Scot. Flor. VI, t. 324. Nits. Pyr. Germ. p. 25. *Sph. concentrica* Bolt. Fung. Halif. t. 180. *Hemisphæria concentrica* Kl. Ex. fungi p. 241. — Stromate sphæroideo vel subsphæroideo vel hemisphærico, raro obovoideo, intus stratis concentricis zonato, nigro v. fusco-nigricante, latit. 2–5 cent.;

peritheciis monostichis, obovoideis, mutua pressione angulatis, ostiolis vix prominentibus, punctiformibus, minimis; ascis longissime pedicellatis, 80–110 ≃ 8–10 p. sporif.; sporidiis oblique monostichis, ellipsoideis, sæpe inæquilateralibus, fuscis, 12–15 ≃ 7–10; paraphysibus longissimis, filiformibus. — Hymenium conidiferum ex cinereo fuscescens. Conidia ovoidea.

Hab. ad truncos Fraxini, Alni, Betulæ, Juglandis, Aceris, Coryli, Salicis, Ulmi, Fagi, etc. in tota Europa, Sibiria, America boreali et australi, India, Ceylon, Borneo, Tasmania, Nova Zelandia, Java. — Adest var. *obovata* (Nees Syst. f. 308), basi angustata substipitata et var. *Eschscholzii* (Ehrenb. F. Cham. p. 59, t. XVIII, f. VIII) extus cuprea, peritheciis oblongis. Brasilia.

2. **Daldinia vernicosa** (Schw.) Ces. et De Not. Schema Sf. in Comm. 1516
critt. I, 198 *Sph. vernicosa.* Schw. New. Am. Sph. p. 9, t. 1. fig. 2 et in Linnæa IV, Litt. p. 46. — Maxima, 25–30 mill. alta, 12–14 cr., subturbinata, subito in stipitem crassum attenuata, superficie atra, vernicosa, levis, intus alba, concentrice stratosa; peritheciis polystichis, crebris, minutis, nigris, ostiolis perexiguis; ascis teretiusculis, 8-sporis; sporidiis oblongis, 20 ≃ 6,5–7.

Hab. ad truncos, in partibus sepimentorum prope terram, Salem, Poughkeepsie Amer. bor., Gallia, Valentienne, Suecia, Algeria, Cuba, Ind. or. — *Dald. concentricæ* var. *obovatæ* affinis, sed differt cortice laccato-nitente undulato, stratis interioribus albis linea atra sejunctis concentricis transversisque. Sec. Berk. Cub. F. n. 819 datur variatas ostiolis prominulis, altera ostiolis impressis.

3. **Daldinia durissima** (Fr.) Sacc. *Sph. concentrica* Wahl. nec Auct. 1517
Hyp. durissimum Fr. S. V. S. et Nov. Symb. p. 130, nec Schw. (Cfr. n. 1447). A *Dal. concentrica* differt quia semper atra, rigido-durissima, persistens (nec demum fragilis), perennis, sporidiis fœde atroinquinans.

Hab. in Smolandia et Uplandia ad truncos (Fries).

4. **Daldinia Asphalatum** (Link et Fr.) Sacc. *Sphæria Asphalatum* 1518
Link et Fr. in Linnæa 1830, p. 540. — Globoso-difformis, crusta atra, nitida, discreta obducta; intus fuliginoso-atra, obsolete zonata, peritheciis linearibus peripherico-immersis, ostiolis minimis punctiformibus.

Hab. in truncis emortuis arborum Brasiliæ (Beyrich.) — *Daldiniæ concentricæ* valde affinis, 25–30 mill. diam.

5. **Daldinia angolensis** (Welw. et Curr.) Sacc. *Hypoxylon angolense* Welw. et Curr. Fungi Angol. p. 282, t. 17, f. 19. — Clavi- 1519

formis, nigerrima, lucida; peritheciis dense aggregatis, ostiolis minutis parum prominentibus; sporidiis nigro-fuscis, ovatis vel leviter curvulis, 12–15 μ. longis.

Hab. in cortice putrescente, Guibolo, Golungo alto, Angola Africæ occidentalis.

6. **Daldinia Féei** Sacc. *Sphæria vernicosa* Fée not. sur trois esp. nouv. de Sphæria exot. p. 2, nec Schw. — Suberosa, simplex, fragilis, dura, torulosa, vernicosa, glaberrima, apice subacuta; peritheciis latissimis, distinctis; sporidiis ovoideis. 1520

Hab. in S. Domingo Antillarum, supra arborum truncos emortuos.

7. **Daldinia cingulata** (Lév.) Sacc. *Sphæria* (concentrica) *cingulata* Lév. Ann. scienc. nat. 3, 1845, p. 47. — Obovata, erecta, substipitata crustaceo-laccata, e fusco nigra nitida, cingulis peritheciis notata: peritheciis interioribus demum albis, stromate immersis, ostiolis obsoletis. 1521

Hab. ad truncos prope New-York (Menaud.). — Stroma 1–2 dec. alt., 1 dec. crass.

8. **Daldinia loculata** (Lév.) Sacc. *Sphæria* (concentrica) *loculata* Lév. Ann. Scienc. nat. 3, 1845, p. 47. — Globosa, substipitata, atra, opaca; peritheciis obovatis stromate nigro immersis, ostiolis prominulis, nitidis, subhemisphæricis; ascis sporidiisque generis. 1522

Hab. in America, ad truncos. — Stipes brevis asperulus.

9. **Daldinia Thouarsiana** (Lév.) Sacc. *Sphæria Thouarsiana* Lév. Ann. Scienc. nat. 5, 1846, p. 258. — Stromate hemisphærico, carbonaceo-fibroso, fusco-nigricante; peritheciis ovatis immersis prominulis circa ostiolum papilliforme applanatis; ascis minutis, linearibus; sporidiis oblongis continuis curvulis, fuligineis. 1523

Hab. in insulis Galapagos ad truncos (Du Petit-Thouars). — Affinis *Dald. concentricæ.*

NUMMULARIA Tul. Sel Fung. Carp. II, p. 42 (Etym. *nummus*, quia stroma sæpius nummiforme). — Stroma orbiculare, cupuliforme, intus in matrice nigrolimitatum superficie, nigricans, marginatum, margine substerili. Perithecia stromati peripherice et monostiche immersa, magna, numerosa, atra. Asci breve stipitati, cylindricei octospori. Sporidia monosticha subellipsoidea, continua fusca. — Conidia sub stromatis immaturi strato supremo nata, deinde libera, sphæroidea, hyalina, minutissima. — Genus ab *Hypoxylo* ægre distinctum, et verisimiliter plures *Hypoxyli* species, e. g. *H. Broo-*

meanum. H. marginatum etc. rectius inter Nummularias adnumeranda.

1. **Nummularia Bulliardi** Tul. Sel. Fung. Carp. II, p. 43, tab. V, f. 11–19. Nits. Pyr. Germ. p. 60. *Sphœria nummularia* DC. Fl. fr. II, 290. *Sph. authracina* Schm. Myk. I, 55. *Hypoxylon nummularium* Bull. Champ. t. 468, fig. 4. *Sph. Clypeus* Schw. — Stromate, peridermio destructo, emergente, fere superficiali liberoque, planissimo, plerumque determinato, orbiculari, v. ovali, rarius forma irregulari, longe lateque effuso, extus intusque aterrimo, petheciorum ostiolis minutissimis, prominulis punctulato, primitus strato carnoso, varie tuberculoso, sordide albido, peridermio adhærente tecto; hymenio conidifero strato singulari corticali, cervino, stroma recens perithecigerum vestienti imposito; conidiis globosis, minimis in sterigmatibus densissime stipatis, brviusculis, parce ramosis, septatis solitarie acrogenis; peritheciis majusculis, ovatis, atris, stromatis locellis confertis inclusis, subliberis; ascis cylindricis, brevissime pedicellatis, octosporis, paraphysibus filiformibus, longe superatis 100–120 ≃ 10; sporidiis monostichis, ovali-subglobosis, rectis, nigricantibus, 12–14 ≃ 9–10. 1524

   Hab. in ramis crassioribus Fagi, rarius Carpini, Castaneæ, Quercus, Aceris, Tiliæ, Platani in Britannia, Gallia, Suecia, Germania, Italia, Belgio, California, Carolina.

2. **Nummularia repanda** (Fr.) Nits. Pyr. Germ. p. 57. *Sphœria repanda* Fr. S. M. II, 346. — Stromate cortice interiori lignoque innato, nigro-limitato, parte superiore erumpente v., cortice dejecto, in ligno superficiali libero, orbiculari, cupuliformi; stromatis superficie undique nigricante et excepto disco subrotundo, concavo, rimuloso, sublævi corrugata; substantia partis immersæ a substrato specie immutato v. tandem fucato formata, erumpentis vero propria, albida, cinerascente; peritheciis sub disco peripherice ac monostiche nidulantibus, omnino immersis, ovatis v. subglobosis, conferta mutuaque pressione haud raro angulatis, collis brevibus ostiolis rotundatis, poro angustissimo pertusis, subprominulis, nitidulis instructis; ascis cylindricis subsessilibus, octosporis, membrana crassiuscula textis, paraphysibus filiformibus, vix longioribus stipatis, 112 ≃ 8; sporidiis oblique monostichis, anguste ovatis, utrinque obtusis, nonnihil inæquilateralibus v. rectis, sæpe guttulatis, fuscis, 15–16–(rarius 12) ≃ 6–7. 1225

   Hab. in ramis et truncis Sorbi Aucupariæ in Suecia; Germania, Helvetia, Fennia, Ruthenia, raro.

3. **Nummularia repandoides** Fuck. Symb. 236, t. II, fig. 46, Sacc. Myc. Ven. Spec. t. XV, fig. 37–40. — Stromatibus erumpentibus, demum liberis, orbicularibus elongatisve, $^1/_2$–2 uncias latis, planis subconvexisve, margine distincto, subrepando, lacerato, primo atro-fuscis, dein aterrimis; perithecüs immersis, ovatis, verticalibus, majusculis, ostiolis valde prominulis, conico-apiculatis; ascis cylindraceis, stipitatis, 8sporis, 120–126 ≃ 8–10; sporidiis suboblique monostichis, oblongo-ovatis, opacis, 16–20 ≃ 7–8 (« 15–16 ≃ 8–9 »). 1526

Hab. in cortice duriore F a g i, P o p u l i etc. in Rhenogovia et in Italia boreali.

4. **Nummularia succenturiata** (Tod.) Nits. Pyr. Germ. p. 58. *Sphæria succenturiata* Tode Meckl. II, 37, fig. 109. — Stromate parte inferiore ligno innata eique concolori sed strato extimo nigricante circumscripta, superiore primo per peridermium arcte adhærens erumpente, deinde, cortice putredine consumpto, in ramis decorticatis superficiali nunc e basi oblonga rarius suborbiculari v. elliptica pulvinata, crassa, deplanata, nunc contra e basi plus minus constricta cupuliformi, orbiculari, intus ex griseo-fusco nigricante extus fuliginoso-atra, corrugata v. callosa; peritheciis ovatis v. oblongis, sæpeque compressis, verticalibus v. ascendentibus, irregulariter polystichis v. submonostichis, majusculis, pariete, crassissimo præditis, stromati omnino immersis et in collum pro situ plus minus longum attenuatis; ostiolis poro angusto pertusis, haud prominentibus; ascis cylindricis subsessilibus, octosporis, paraphysibus filiformibus obvallatis, 120 ≃ 8–9; sporidiis oblique monostichis, fusiformibus v. ovatis, utrinque obtusis, rectis v. parum inæquilateralibus, fuscis, 16-(rarius 18) ≃ 5–7 (Sec. Berk 12–15 μ. long.). 1527

Hab. in ramis q u e r c i n i s et a c e r i n i s in Germania et Britannia. — Var. *lævis;* elliptica, lævis, nigra, intus albida, peritheciis immersis ovatis, astomis. — *Sowerb.* t. 394, f. 8. — Ad ligna in Anglia. An hujus loci?

5. **Nummularia lutea** (Alb. et Schw.) Nits. Pyr. Germ. p. 59, *Sph. lutea* Alb. et Schw. Consp. Nisk. p. 10, t. I, fig. 1, Curr. Linn. Trans. XXII, t. 46, fig. 56. — Stromate in ligno decorticato superficiali, orbiculari, crasso, cupuliformi, margine rugoso, superficie ex fusco nigricante, intus luteo; peritheciis polystichis, dense stipatis, ovatis v. subglobosis, magnitudine variis, superioribus tantum collis ostiolisque subprominulis instructis; ascis cylindricis, subsessilibus, octosporis; sporidiis monostichis, exiguis, ovatis, rectis, fuscescentibus, 5–6 ≃ 3. 1528

Hab. in ligno truncorum Alni, Salicis etc. in Germania, Britannia, Suecia, raro.

6. **Nummularia discreta** (Schw.) Tul. Sel. Fung. Carp. II, p. 45, t. V, fig. 1–10, Nits. Pyr. Germ. p. 60, *Sph. discreta* Schw. Syn. Am. bor. p. 195. — Stromate peridermio erumpente, determinato, orbiculari, disciformi, margine incrassato, cinereo-fusco, tandem aterrimo; hymenio conidifero ob conidia numerosissima pulveraceo, cinereo-albido, in stromatis strato corticali, mox secedente expanso, primo strato carnoso tecto; peritheciis atris, numerosissimis, locellis inclusis, stromate omnino immersis, collis brevibus ostiolisque haud prominentibus instructis; ascis cylindricis, pedicellatis, octosporis, paraphysibus longissimis filiformibus, stipatis, 150–180 ≃ 13; sporidiis monostichis, subglobosis, nigricantibus, 13 ≃ 10 («15–18 ≃ 12»). 1529

Hab. in ramis crassioribus Mali, Sorbi, Cercidis, Magnoliæ, Ulmi in Germania, Gallia, Italia, Carolina, Alabama, New-York, Cuba.

7. **Nummularia dryophila** Tul. Sel. Fung. Carp. II, p. 48. — Stromate pulvinato, ambitu subcirculari, 1–3 cent. extenso, 2–3 mill. crasso, atro; peritheciis immersis, ostiolis non prominentibus; ascis cylindricis, 50–80 ≃ 10–13, octosporis; sporidiis distichis, 16 ≃ 6,5, fuligineis, muco destitutis. 1530

Hab. in cortice quercino in Gallia.

8. **Nummularia gigas** Plow. Grevill. VIII, p. 106, t. 130, fig. 3. — Erumpens, e cortice interiore lignoque subjacente oriunda, initio suborbicularis, denique elliptica v. elongata; extus nigra, concava, subrepanda, ob ostiola prominula rugulosa, intus fibrosa albido-cinerea; peritheciis peripheriis, densis, pyriformibus, mutue compressis, collis longis, ostiolis prominulis, rotundis nigris; ascis cylindricis, stipitatis 120–150 ≃ 12–15, p. sporif. 50–60 μ. longa; sporidiis octonis monostichis, ovoideis v. subrotundis, subinde nucleatis, 10–12 ≃ 8–10. 1531

Hab. in cortice Betulæ, Ringstead Downs, Britannia. — Stroma 3–4 cent. long. 1 cent. lat.., 3–4 mill. crass.

9. **Nummularia frustulosa** (B. et C.) Sacc. *Hyp.* (Glebosæ) *frustulosum* B. et C. Cuban Fungi n. 817. — Minor, gregaria, irregularis, depressa, subtus, centro excepto, libera, intus alba suberosa; peritheciis immersis vel semiimmersis; ostiolis prominulis; ascis filiformibus rectis; sporidiis brunneis, minutis 5 ≃ 2,5. 1532

Hab. in ligno putri in Cuba.

10. **Nummularia Wrightii** (B. et C.) Sacc. *Hyp.* (Glebosæ) *Wrightii* B. 1533

et C. Cuban Fungi n. 816. — Pulvinata, margine inflexo libero, intus basim versus e flavo ferruginea, vel brunnea; contextu radiante, superficie papillata; peritheciis subglobosis parvis, ostiolis latentibus.

Hab. in ligno et cortice in Cuba et Brasilia. — Stroma 35–40 mill. lat., 8 mill. cr.

11. **Nummularia punctulata** (B. et Rav.) Sacc. *Diatrype punctulata* B. et Rav. in Grev. IV, p. 94, *Hyp. punctulatum* Berk. — Latissime effusa, nigra, peridermio rupto cincta, levissima; peritheciis exiguis ovoideis, stipatis; ostiolis punctiformibus, impressis, crebris signata; «ascis tereti-clavatis, longe stipitatis, p. sporif. 90 ≃ 9, octosporis; sporidiis monostichis ellipsoideis, utrinque subtruncatis, 7–8 ≃ 4,5, asco diu inclusis, initio hyalinis, dein fuscidulis». 1534

Hab. in ramis subputridis Quercus albæ etc., in New Jersey, Carolina, Amer. bor. — Ad *Anthostoma* nutat. Stroma centimetra aliquot extensum.

12. **Nummularia placentiformis** (B. et C.) Sacc. *Hyp.* (Glebosæ) *placentiforme* B. et C. Cuban Fungi n. 815. — Magna, depresso-pulvinata, margine inflexo libero, contextu nigro, superficie e rubiginoso nigra; peritheciis oblongis immersis, ostiolis papillæformibus; sporidiis subellipticis, fuligineis, 12–14 μ. longis. 1535

Hab. in ligno putri in Cuba. — Stroma 40–50 mill. long.

13. **Nummularia suborbicularis** (Welw. et Curr.) Sacc. *Hypoxylon suborbiculare* Welw. et Curr. Fungi Angol. p. 281, Tab. 17, fig. 18. — Stromate suborbiculari, $1^1/_2$ unc. lato, $^3/_8$–$^5/_8$ unciæ crasso, subtus leviter concavo, centro adfixo; super plano vel plano-convexo et leviter undulato, intus favoso et albido, extus nigro, pulvere rubiginoso consperso; margine inverso et crassescente; peritheciis stipatis, immersis, stromatis faciem superiorem et marginem inversum occupantibus; ostiolis prominentibus, papillatis; sporidiis nigro-fuscis, ellipticis vel cymbiformibus, 12–13 μ. longis. 1536

Hab. in truncis vetustis in sylvis inter Monino et lacum Ivantâla, Huilla, sed rarum, Angola (Africa occid.). — Var. *Cookeanum* Sacc. Stromate fibroso-compacto, intus ochraceo-fuligineo, extus rubiginoso, margine non incrassato vix obtusiusculo; ostiolis non v. vix extantibus; sporidiis 10–12 ≃ 6–7. — Ad truncos in Pegu (Asia). Dedit M. C. Cooke.

14. **Nummularia tenuis** Pass. Funghi Abiss. p. 186, t. IV, fig. 6. — Stromate ligno adnato, effuso, peridermio, quo tegitur, tandem evanido, denudato, tenui, fusco-rubiginoso, opaco; peritheciis oblongis 1537

parallele stipatis, erectis, ostiolis prominulis hemisphæricis, punctiformibus; sporidiis elliptico-oblongis, regularibus vel lateribus vix inæqualibus, junioribus sordide flavicantibus, medio ample guttulatis, translucidis; maturis fuscis opacis, 16–20 ≃ 6–7 (ex icone); ascis et paraphysibus non visis.

Hab. in fragmentis ligneis secus flumen Kelseret (Abyssinia).

15. **Nummularia regia** (De Not.) Sacc. *Hypoxylon regium* De Not. 1538
Sfer. ital. p. 15, t. 12. — Stromate cortice innascens, epidermide qua primitus tegitur, varie secedente, denudato, crustiformi, late lineari-oblongato, planiusculo, 7 cent. longit. attingente, centimetrum lato, vel elliptico, ovato, convexo, 3 cent. latit. æquante, ceterum crassiusculo, carbonaceo, fragili, extus, intusque fusco, toto ambitu margine undulato, repando, erosove, adpresso, atque halone sterili limbato, disco verruculis minutis, hemisphæricis, vertice papillatis, crebre tuberculato, intus loculoso, loculis exiguis e mutua pressione subprismaticis, innumeris; peritheciis ovoideis, vertice in collum breve attenuatis, tenuiter membranaceis, subtilissime lineolato-reticulatis; ascis copiosissimis, 8-sporis, teretibus, cito evanidis; paraphysibus tenuissimis, filiformibus, guttuliferis; sporidiis ellipsoidis, badiis, translucidis, 15 μ. long.

Hab. in trunco Juglandis, Valle Intrasca, Italiæ borealis.

16. **Nummularia mediterranea** (De Not.) Sacc. *Sph. mediterranea* 1539
De Not. Micr. ital. Dec. VI, p. 96, fig. II. — Denudata adnato-superficialis, diam. bi-tripollicaris, crass. vix mill., planiuscula v. subundulata, atra, ambitu sinuosa v. sublobata, margine sterili nigricante, stromate carbonaceo, fragillimo; peritheciis minutis, numerosis, arcte stipatis, atris, mutua pressione oblongo-prismaticis, vertice breve attenuato in ostiolum erumpens, punctiforme, bullula cinctum desinente; ascis cylindraceo-clavatis, paraphysatis, octosporis, 140–150 ≃ 10; sporidiis ellipsoideis, utrinque rotundatis, badio-fuscis, guttulatis, monostichis, 16 ≃ 7,5.

Hab. in truncis decorticatis quercinis prope Iglesias (Sardinia).

17. **Nummularia obularia** (Fr.) Sacc. *Hyp. obularium* Fr. Nov. Symb. 1540
130. — Immersa, erumpens, demum late effusa, determinata, applanata, impolita, stromate proprio atro, peritheciis immersis oblongis, ostiolis hemisphærico-prominulis umbilicatis; sporidiis atris.

Hab. in truncis emortuis arborum in Costa Rica (Œrsted). — Proxima *N. Bulliardi*, at diversa stromate cum matrice connato, nec demum secedente.

18. **Nummularia Glycyrrhiza** (Berk. et Curt.) Sacc. *Hypox. Glycyrrhiza* B. et C., Exot. Fungi Schw. p. 285, *Sph. nummularia* Schw. nec Auct. — Suborbicularis, margine tenui, centro pulvinata punctis papillæformibus centro depressis notata; peritheciis oblongis. 1541

Hab. in corticibus, Surinam, Amer. merid. — Pulvinata, 25 mill. longa, 12 mill. lat. A *N. Bulliardi*, cui valde affinis, peritheciis oblongis stipatissimis recedit.

19. **Nummularia spondylina** (Fr.) Sacc. *Sph. spondylina* Fr. S. M. II, 347, *Hypoxylon spondylinum* Fr. Summ. Veg. Scand. p. 383. — Erumpens, difformis, convexa, subrugosa, extus intusque atra, peritheciis demersis, ostiolis latentibus. 1542

Hab. in cortice Fraxini, rarissima, in Suecia. — Quamvis erumpens, omnino libera evadit nec basi adnata. Minor, 1–2 lin. lata et crassa, bullata, situ admodum gregario et sæpius confluente, unde difformis v. spondylorum instar seriata; specimina solitaria regularia, convexa, cortice duro leviusculo. Perithecia ovata, demersa; vetustate corrupta, rigido-fragilia, ut *Ustulina*.

20. **Nummularia constricta** (Fr.) Sacc. *Sph. constricta* Fr. Elench. II, 70. — Effusa, crustacea, plana, secedens, tuberculosa, atra, intus concolor; peritheciis stipatis, parallelis, oblongo-linearibus; ostiolis in tuberculis pertusis. 1543

Hab. ad ligna denudata Galliæ (Guepin, Mougeot). — Stroma tenue, rigidum, atrum, ut videtur, latissime effusum et incrustans, indeterminatum; superficies opaca, adulta saltim nuda et atra, supra perithecia tuberculosa, sed perithecia non prominent. In his tuberculis adsunt ostiola simplicia (non papillata), pertusa; perithecia atra, stipata, oblongo-linearia, collo brevi, sed stromati nulli substrato imposita. Affinis *Numm. Bulliardi*.

21. **Nummularia Artemisiæ** (Schw.) Sacc. *Sph.* (Glebosæ) *Artemisæ* Schw. Syn. Am. bor. n. 1227. — Minor, bilinearis, ovata, subangulata, subcupulata et marginata ex epidermide stellatim revoluta erumpens, interdum confluens, aterrima, disco rugoso opaco, ostiolis parum prominentibus umbilicatis crebris; stromate aterrimo, in quo nidulant perithecia globosa minuta cava. 1544

Hab. in ramis emortuis Artemisiarum, Bethlehem, Am. bor. — Stroma quasi liberum, insidens libro corticali, utrinque nigrum, rugosum. Non omnino confluens sed potius perithecia invicem adpressa. *Nummulariæ repandæ* proxima.

22. **Nummularia subaffixa** (Schw.) Sacc. *Sph.* (Glebosæ) *subaffixa* Schw. Syn. Am. bor. n. 1226. — Transversim ramulos subambiens, 1545

crassa, elevata, ligno adnata more *Nummulariæ Bulliardi*, applanata, plerumque orbiculata, margine sterili, sed non libero, superficie externa subrugosa atra; peritheciis stipatis, oblongis, stromate parco circumdatis; ostiolis crassiusculis, non impressis, conice protrusis.

Hab. frequens in ramis dejectis pyrinis, Bethelehem Amer. bor. — Long. et lat. $^1/_2$–1 uncialis. Sæpe confluens; primum epidermide cincta, demum denudata.

REPERTORIUM

SPHÆRIACEARUM PHÆOSPORARUM

SECUNDUM MATRICES

Obs. A. indicat *Anthostoma.* — Al. *Anthostomella.* — As. *Astrocystis.* — B. *Bombardia.* — Bl. *Bolinia.* — C. *Ceratostoma.* — Ca. *Camillea.* — — Ch. *Chætomium.* — Co. *Coprolepa.* — D. *Daldinia.* — H. *Hypoxylon.* — Ha. *Hypocopra.* — He. *Helminthosphæria.* — N. *Nummularia.* — Ph. *Philocopra.* — Po. *Poronia.* — R. *Rosellinia.* — S. *Sordaria.* — U. *Ustulina.* — X. *Xylaria.*

Monenda. Numeri specierum post 1000, brevitatis causa, citantur omisso mille; e. g. 1005, 1252, citantur: 5, 252. Iterum moneo matrices non specifice definitas v. zoogenas — in hac sectione copiosissimas — ut fimum, ligna etc. consulto omissa esse.

Abies — Ch. 818. 823. — Al. 75. — X. 249. — Bl. 332.
Acanthus — Al. 89.
Acer — R. 952. 971. — Al. 62. 63. — A. 106. 126. 144. — X. 239. 240. — H. 346. 349. 370. 423. 433. 434. 440. 445.
Agave — Al. 48.
Ailanthus — H. 448.
Alnus — R. 940. 968. 978. 991. 1. 9. — A. 97. 138. 143. 146. — Bl. 332. H. 361. 368. 376. 441. 448. — D. 515.
Aloe — Al. 32.
Ananas — Al. 70.
Andromeda — R. 948. 999.
Andropogon — C. 781.
Angelica — Al. 55.
Apeiba — X. 302.
Aralia — Ch. 825.
Arbutus — Al. 58.
Arctostaphylos — A. 120.
Artemisia — N. 544.
Artocarpaceæ — X. 157.
Arundinaria — H. 416. 431.
Arundo — S. 860. — R. 941. — Al. 29. 31. 34. 50. 83.
Aspicilia — R. 16.
Atropa — A. 117.

Bambusa — R. 979. — Al. 38. 73. 74. As. 96. — H. 431.
Baptisia — Al. 60.
Benzoin — H. 472.
Berberis — R. 992.
Betula — R. 922. 968. 11. — B. 26. — A. 99. 126. 127. 143. — H. 333. 337. 368. 376. 431. 434. 505. — D. 515. — N. 529.
Brassica — S. 859.
Buxus — R. 920.

Calamagrostis — Al. 30.

Canna — Al. 69.
Carex — Al. 28. 34.
Carpinus — C. 790. — B. 26. — Al. 53. — A. 99. 111. 126. 129. — X. 272. — U. 328. — 333. 347. 350. 468. 448. — N. 524.
Carlina — Al. 76.
Castanea — R. 917. — Al. 66. 68. — A. 97. 129. — H. 368. 450. — N. 524.
Catalpa — H. 509.
Celtis — H. 360. 448.
Cenomyce — R. 19.
Cerasus — R. 973. 990.
Cercis — H. 447. — N. 529.
Chamærops — Al. 35. 36. 95. — H. 418.
Cichorium — Al. 59.
Cirsium — 863.
Cladium — Al. 45.
Cladonia — R. 14.
Clavaria — He. 837.
Cocos — C. 776. 809.
Coffea — R. 965.
Coniferæ — A. 115.
Cornus — R. 922. 956. — Al. 55. — H. 368. 431.
Corticium — Ha. 895.
Corylus — C. 783. — R. 921. 939. 11. H. 333. 347. 368. 434. 448. 472. 484. 485. — D. 515.
Cratægus — R. 972. — A. 118. 121. X. 271. — H. 368.
Cullenia. — X. 254.
Cupressus — R. 991.
Cyperus — R. 948.
Cytisus — R. 671. — Al. 79.

Desfontainea — Al. 72.
Dianthus — Ch. 799. 830.
Diospyros — X. 270.
Dipteryx — Al. 78.

Erica — Al. 87.
Erigeron — Ch. 814.
Erythrina — H. 420.
Eupatorium — R. 981.

Fagus — C. 790. — S. 856. — R. 968. 991. 994. — B. 26. — A. 97. 103. 125. 126. 128. 139. 144. 145. — X. 239. 240. 270. 305. 306. — U. 328. H. 335. 337. 344. 348. 355. 368. 370. 407. 430. 431. 433. 434. 448. 462. 463. 484. 485. 487. — D. 515. — N. 524. 526.
Ferula — Ha. 894.
Ficus — R. 935.
Fraxinus — C. 792. — Ch. 828. — A. 97. — H. 337. 339. 355. 368. 431. 434. — D. 515. — N. 542.

Galium. — Al. 72. 76.
Genista — Al. 77.
Georgina — Ch. 819.
Goniothalamus — X. 270.
Graminaceæ — C. 793. — Ch. 812. 832. Al. 45. 49. — X. 286.
Guttiferæ — X. 263.

Hedera — R. 921. — A. 124.
Helianthus — Ch. 796. — S. 859.
Hierochloa — Al. 34.
Hydnum — H. 471.
Hymenæa — X. 282.
Hyssopus — Ch. 835.

Ilex — Al. 54.
Inula — Al. 68.
Iuglans — C. 779. — R. 968. — Bl. 332. — H. 372. 506. — D. 515. — N. 538.
Iuncaceæ — Al. 45.
Iuncus — Al. 46.
Iungermannia — R. 19.
Iuniperus — R. 961. 998.
Iussieua — H. 490.

Kerria — Al. 55.

Lantana — X. 169.
Laurus — Al. 88. — H. 368. 483.
Liquidambar — R. 969. — A. 147. — X. 270. — H. 369. 431. 496.
Liriodendron — R. 925. — X. 279.

Lonicera — R. 857. 974. 3. — Al. 80. — A. 122. 123.
Luzula — Al. 92. — A. 112.

Magnolia — A. 137. — H. 384. 444. N. 529.
Melampyrum — Al. 76.
Monocotyledoneæ — Al. 91.
Morus — R. 950. — A. 129.
Myrica — H. 414.
Myricaria. — R. 12.

Nephroma — R. 15.
Nyssa — H. 370.

Olea — Al. 56.
Orchidaceæ — X. 276.
Oreodaphne — H. 434. 448.
Ostrya — H. 333.

Paliurus — Al. 86.
Palmaceæ — R. 929. — Al. 82. 85. — H. 403. 468. 495.
Pandanus — R. 976. — Al. 90.
Persea — H. 451.
Persica — X. 268.
Philadelphus — R. 922.
Phillyrea — A. 116.
Phœnix — Al. 35.
Phormium — Al. 39.
Pinus — C. 785. 786. 791. — Ch. 811. 823. — R. 949. 991. 993. 994. 995. 998. — Al. 52. — A. 118. — X. 285. — H. 385. 434. 499.
Pircunia — S. 839. 862.
Pistacia — A. 132.
Platanus — C. 782. 969. — R. 2. — H. 445. 511. — N. 524.
Polyporus — R. 958. — H. 463. 464.
Populus — Ha. 893. — R. 955. 960. 968. 986. 994. — X. 239. 261. — H. 345. 347. 413. 434. 448. 485. 504. N. 526.
Prinos — R. 959. — H. 472.
Prunus — C. 771. — R. 950. 9. 25. — A. 108. — H. 333. 434.
Pyrus — A. 97. 100. 104. — H. 434. 503. — N. 529. 545.

Quercus — C. 772. 787. — Ch. 802. 810. — R. 917. 925. 946. 951. 964. 968. 969. 977. 988. 994. — A. 97. 102. 105. 114. 119. 126. 129. 130. 149. — X. 238. 266. 306. — H. 333. 349. 364. 368. 370. 372. 376. 384. 388. 391. 406. 413. 414. 433. 434. 448. 453. 463. 477. 484. 485. 486. 507. — N. 524. 527. 529. 534. 539.

Rhamnus — A. 97. 129.
Robinia — R. 968.
Rosa — R. 968.
Rubus — C. 778. — R. 928. 939. — Al. 51. 55. 64.
Ruscus — R. 929. — Al. 55.

Sabal — Al. 47.
Saccharum — Al. 73.
Salix — C. 789. — S. 857. — R. 956. 991. 993. 1000. — B. 26. — Al. 55. 57. — A. 99. — X. 289. 290. 306. — H. 333. 343. 349. 373. 431. 434. 450. 452. 473. — D. 515.
Salsola — R. 982.
Salvia — R. 989. — Al. 76.
Sambucus — S. 859. 861. — R. 997.
Sapindus — Al. 65.
Saponaria — S. 859.
Sassafras — H. 451.
Scirpus — Al. 71.
Secale — Ch. 793.
Serratula — S. 859.
Smilax — Al. 40. 41. 42. 43. — H. 371.
Sparganium — Al. 92.
Spiræa — Al. 67.
Solanum — Ch. 804. 806. 807. 829.
Sorbus — R. 968. — H. 373. 376. — N. 525. 529.
Syringa — R. 13.

Tamarix — R. 671.
Tanacetum — C. 780.
Tetradenia — R. 930.

Tilia — U. 328. — H. 383. 434. — N. 524.
Typha — Ch. 836. — Al. 45.

Ulex — A. 134.
Ulmus — S. 859. — R. 1000. — A. 101. 118. — H. 368. — D. 515. — N. 529.
Urania — H. 500.

Vaccinium — Al. 93.
Viburnum — Al. 55. — H. 360.
Vinca — Al. 55.
Viscum — Al. 94.
Vitis — C. 784. — R. 6.

Yucca — Al. 32. 33. 44.

Zea — Ch. 816.
Zygodon — R. 19.

Sect. 3. **Hyalosporæ** Sacc.

Sporidia ovoidea v. oblonga v. fusoidea, continua, hyalina v. subhyalina.

Clavis analytica generum.

A) Simplices.

a) Perithecia rostrata (Asci 8-spori).

Ceratostomella. Perithecia subcarbonacea, insculpto-superficialia, glabra, v. nigropilosa, sæpius xylogena.

Camptosphæria. Perithecia subcarbonacea, innato-erumpentia, sulphureo-tomentella, caulogena.

Gnomoniella. Perithecia submembranacea, initio epidermide tecta, sæpius phyllogena.

b) Perithecia erostrata.

1. Tectæ.

† Asci 4-8-spori.

§ Perithecia pseudostromate radioso nullo adnata.

Læstadia. Perithecia lenticularia membranacea, poro minuto pertusa. Asci clavulati, aparaphysati. Sporidia mutica.

(*Stigmatula.* Est Stigmatea amerospora, ad interim huic generi subjuncta, quod videas inter *Didymosporas*).

Phomatospora. Perithecia globulosa, membranacea, papillata. Asci cylindrici, aparaphysati. Sporidia mutica.

Physalospora. Perithecia globulosa, solidiuscula papillata. Asci clavulati, typice paraphysati. Sporidia mutica.

Urospora. Perithecia globulosa papillata. Asci clavulati, aparaphysati. Sporidia longe caudata.

§§ Perithecia pseudostromate radioso nigro phyllogeno adnata.

Trabutia. Perithecia innato-erumpentia, pertusa. Asci et sporidia Physalosporæ.

†† Asci polyspori.

Ditopella. Perithecia peridermio tecta, glabra.

Polytrichia. Perithecia innato-erumpentia, strigoso-pilosa.

2. Nudæ, subsuperficiales. (Asci 8-spori).

Trichosphæria. Perithecia setulosa, pilosa v. byssiseda, subcarbonacea.

Wallrothiella. Perithecia glabra, subcarbonacea.

(*Zignoina.* Est Zignoella amerospora, ad interim huic generi subjuncta, quod videas inter *Phragmosporas*).

B) Cæspitosæ v. stromaticæ (Asci 8-spori).

Botryosphæria. Perithecia erumpenti-superficialia, basi stromatica suffulta, cæspitosa; collis peritheciorum nullis.

Cryptosporella. Perithecia peridermio tecta, valseo-aggregata, collis peritheciorum manifestis.

CERATOSTOMELLA Sacc. Mich. I, 370 (Etym. a *Ceratostomate*, cujus est analogum genus). — Perithecia subcarbonacea, subsuperficialia v. basi insculpta, glabra v. vestita; ostiolo tereti v. filiformi peritheciis plerumque longiore. Asci typice aparaphysati, octospori. Sporidia continua, globosa, ovoidea v. suboblonga, hyalina. Spermogonia et conidia in nonnullis nota.

1. **Ceratostomella rostrata** (Fr.) Sacc. *Sphæria rostrata* Fr. S. M. II, 473. *Ceratostoma rostratum* (Fr.) Fuck. Symb. myc. p. 127. — Peritheciis sparsis, semiimmersis, sphæroideis, glabris, atris, rugosis, latit. 0,3-0,7 mill.; rostro stricto, bisulcato v. quadrangulari; ascis subsessilibus, cylindraceo-clavatis, octosporis, 45-46 ≃ 9; sporidiis oblongatis vel subellipsoideis, eguttulatis vel guttulis 2 præditis aut spurie tenuiter uniseptatis, rectis, chlorino-hyalinis, 9-12 ≃ 4. — Spermogonia peritheciis similia (perithecia juvenilia?); spermatiis ellipsoideis, hyalinis, 5-6 ≃ 2-3. 1546

   Hab. in ligno carioso molli præsertim Alni, Quercus, Aceris, Fagi, Betulæ, in Suecia, Germania, Gallia, Italia, Fennia, Cuba, Amer. bor. — Var. *levirostris* rostro non v. vix sulcato. Cum specie. — *C. cirrhosa* ab hac præcipue differt sporidiis monostichis.

2. **Ceratostomella cirrhosa** (Pers.) Sacc. *Sphæria cirrhosa* Pers. Syn. Fung. p. 59 Fr. S. M. II, 475, *Ceratostoma cirrhosum* Pers. Fuck. Symb. myc. p. 127. — Peritheciis sparsis, subinde conglomeratis, primitus immersis, demum semiemersis, subsphæroideis, fibrillis ligno irrepentibus, fuscis obsitis, deinde parte denudata glabris, atris, lævibus, latit. 0,4 mill. vel ultra, rostro rudi, noduloso, subfalcato, glabro, longiusculo; ascis subsessilibus, cylindraceo-subclavatis, 65-75 ≃ 7-9, octosporis; sporidiis monostichis, ellipsoideis vel suboblongatis, guttulis 1-4, plerumque 2 præditis, chlorino-hyalinis, 9-12 ≃ 3,5. — Spermatia in peritheciis immaturis (?) ovoideo-cylindracea, hyalina, 4 ≃ 2 μ.; conidia in fibrillarum apicibus, ovata, 3septata, atro-fusca, 28 ≃ 14. 1547

   Hab. in ligno carioso Quercus, Carpini, Alni, Pini in Germania, Suecia, Fennia, Britannia, America.

3. **Ceratostomella lejocarpa** Sacc. Mich. I. 370 et F. ital. 345. — Peritheciis laxe gregariis, ligno infossis, globulosis, $^1/_3$ mill. diam., nigris, contextu minute parenchymatico, solido, ostiolis cylindricis, exertis, glabris $^1/_2$-$^3/_4$ mill. longis; ascis cylindricis, subsessilibus, 75-85 ≃ 6, apice lumine 2-crenulato, rotundatis, aparaphysatis, octosporis; sporidiis oblique monostichis, ovoideo-oblongis utrinque ro- 1548

tundatis, 9–11 ≃ $4\frac{1}{2}$–5, nubilosis v. 2-guttulatis hyalinis (rarissime extra ascos obsolete 1–3-septatis).

Hab. in ligno putri fagineo in sylva Cansiglio, Ital. bor. — A *C. cirrhosa*, cui valde affinis, imprimis ostiolis glabris, ascis angustioribus diversa.

4. **Ceratostomella ampullasca** (Cooke) Sacc. *Sphæria ampullasca* 1549
Cooke Hand. n. 2628. — Peritheciis gregariis v. subsparsis, ligno immersis, globulosis, nigris; ostiolis perithecio subtriplo longioribus, cylindricis, flexuosis; ascis clavatis, breve attenuato-stipitatis, sursum subconstrictis truncatisque (h. e. fere ampulliformibus) 60–70 μ. long.; sporidiis 2–3-stichis, inordinatis, oblongo-cylindraceis, utrinque rotundatis, 2-guttatis, 12–13 μ. longis, hyalinis.

Hab. in ligno putri quercino, Shere, Britannia (Capron). — Forma ascorum mox dignoscenda species.

5. **Ceratostomella vestita** Sacc. Mich. I. 370, F. ital. t. 344. — Pe- 1550
ritheciis sparsis, subsuperficialibus, globulosis, $\frac{1}{3}$–$\frac{1}{2}$ mill. diam., pilis tortuosis, septulatis, 200–250 ≃ 3, laxe vestitis, in ostiolum cylindraceum denudatum, perithecium subæquans desinentibus; contextu distincte parenchymatico fuligineo; ascis cylindricis, 50–55 ≃ 4, apice obtusis, breve stipitatis aparaphysatis, octosporis; sporidiis monostichis ellipsoideis, 6 ≃ 3 $\frac{1}{3}$–4, sæpe inæquilateralibus, distincte 2-guttulatis, hyalinis.

Hab. in ligno fagineo putri, denigrato, socia *Bispora pusilla* Sacc., pr. Treviso, Ital. bor. — A *Ceratostomate Notarisii* Sacc. habitu subsimilis pluribus notis differt.

6. **Ceratostomella De Baryana** (Auersw.) Sacc. *Gnomonia De Ba-* 1551
ryana Auersw. in Myc. Eur. Pyr. p. 23, t. 10, fig. 140 (nec 138). — Peritheciis ligno immersis, sparsis v. gregariis, atris, globulosis ovatisve, 140 μ. diam.; contextu subalutaceo; rostro subcylindraceo, rigido, perithecium subæquante, ex ligno emergentibus; ascis cylindraceis breve stipitatis, octosporis, 68 ≃ 6; sporidiis monostichis, ellipsoideis, utrinque rotundatis, continuis, granulosis, subhyalinis, 9–10 ≃ 3–4.

Hab. in ligno putri fagineo, am Inselsberge, Germania (Fleischhak).

7. **Ceratostomella rhenana** (Auersw.) Sacc. *Gnomonia rhenana* Auersw. 1552
Mycol. Eur. Pyr. p. 23, t. 10, fig. 139. *Sph. cirrhosa* Fuck. F. rhen. 1804, p. p. — Peritheciis ligno immersis, sparsis v. gregariis, atris, globulosis, 300 μ. diam.; rostro cylindrico, rigido, perithecium subæquante emergente; ascis cylindraceis, in stipitem

brevem attenuatis, octosporis, 154 ≃ 12; sporidiis distichis elongato-oblongis, utrinque rotundatis, curvulis, continuis, 24 ≃ 7, subhyalinis, 4-nucleatis.

Hab. in ligno putri molli quercino, carpineo etc. — A *Cer. cirrhosa* abunde diversa.

8. **Ceratostomella dubia** Sacc. *Melanomma dubium* Sacc. F. Ven. Ser. III, p. 5. F. ital. fig. 299. — Peritheciis remote sparsis, superficialibus, subglobosis, vix $^1/_3$ mill. diam., in ostiolum cylindraceo-conoideum perithecium æquans attenuatis, minutissime rugulosis basi hyphis brevibus cinctis, ceterum glabris, carbonaceis, atris; ostiolo obtuso dein minute perforato; ascis cylindraceis, angustis; 150 ≃ 8, paraphysibus nullis visis, 8-sporis; sporidiis oblique monostichis, oblongo-fusoideis, 20-25 ≃ 7-8, plerumque curvulis, utrinque acutiusculis, majuscule 1-2-guttulatis, hyalinis. 1553

Hab. in ligno denudato putrescente fagineo in sylva Cansiglio Treviso, Ital. bor. parcissime.

9. **Ceratostomella barbirostris** (Duf.) Sacc. *Sph. barbirostris* Duf. in Turp. Icon. fig. 1, Fr. S. M. II, 473. — Conglomerata, atra, peritheciis globosis scabris, ostiolo elongato clavato patentim pubescente; « ascis tereti-clavatis, deorsum attenuatis 36-40 ≃ 5-6, octosporis; sporidiis subdistichis oblongo-ovoideis, 5-6,5 ≃ 2-3 granulosis, hyalinis ». 1554

Hab. ad ligna Galliæ et New Jersey, Amer. bor. — Perithecia plura, conglomerata in cæspites subregulares, exacte globosa, minoris magnitudinis. Ostiola peritheciis sextuplo longiora, apice incrassata, subincurva, tota pubescentia.

10. **Ceratostomella stricta** (Pers.) Sacc. Mich. II, 53. *Ceratostoma strictum* Pers. Fuck. Symb. myc. p. 127. *Sph. stricta* Pers. Syn. p. 59. — Peritheciis confertis vel seriato-conglomeratis, mox emersis, sphæroideis, levibus, rigidis, fragilibus, glabris, atris, rostro stricto, rigido, obtusiusculo, perithecio vix duplo longiore; ascis in pedicellum gracillimum attenuatis, cylindraceo-clavatis, 30-35 ≃ 5 p. sporif., octosporis; sporidiis distichis, elongatis, leviter curvatis, simplicibus, 6-8 ≃ 1,5-2, 2-4-guttulatis, hyalinis. 1555

Hab. ad ligna putria quercina in Suecia, Germania, Gallia, Fennia, Amer. bor. — β. *cingulata* Fr. S. M. II, 474. Peritheciis nigris, apice cingulo fusco, ostiolo longitudine perithecii, incurvo. In Suecia.

11. **Ceratostomella? trichina** (Moug.) Sacc. Mich. II, 53. *Sph. trichina* Pers. in Moug. Stirp. Vog. n. 666 et Roum. F. Gall. n. 187. 1556

— *Cer. strictæ* paraffinis, a qua differt præsertim peritheciis setulosis. Nucleum vero albo-cellulosum asporum tantum vidi.

Hab. in ligno putri quercino in Vogesis.

12. **Ceratostomella dispersa** (Karst.) Sacc. *Ceratostoma dispersum* Karst. Fung. Fenn. exsicc. 966 et Myc. Fenn. II. p. 116. — Peritheciis sparsis, immersis, deinde erumpentibus, interdum demum subsuperficialibus, sphæroideis, atris, glabris, parte superiore interdum fusco-fibrillosis, latit. 0,6–0,7 mill., rostro emerso, subfalcato, rigido, obtuso, pilis brevibus fuscis obsesso, perithecio vix duplo longiore; ascis fusoideo-clavatis, pedicello filiformi, 45 ≃ 4,5 octosporis; sporidiis, distichis, elongatis vel oblongatis, rectis, guttulis 4 majusculis præditis, chlorino-hyalinis, 6–8 ≃ 2 paraphysibus nullis. 1557

Hab. in pagina interiore corticis Betulæ vetusti ad Mustiala Fenniæ. — *Cerat. strictæ*, præcipue quoad partes internas, proxime accedit, notis vero allatis facile distinguitur.

13. **Ceratostomella subpilosa** (Fuck.) Sacc. *Ceratostoma subpilosum* Fuck. Symb. mycol. p. 128. — Peritheciis sparsis, subsuperficialibus, magnitudine formaque ut in fungo spermogonio, nec non extus subtiliter fusco-pilosis, dein glabris, rostroque breviori, obtuso, perforato, glabro; ascis cylindraceis, stipitatis, 8sporis, 58 ≃ 5; sporidiis oblique monostichis, ovatis, uniguttulatis, hyalinis, 7 ≃ 4; peritheciis spermogonicis, sparsis gregariisque, subsuperficialibus, media magnitudine, carbonaceis, aterrimis, globosis, rostro gracili, plerumque abrupte cylindraceo, perithecium æquante, ostiolo perforato, plerumque subtiliter bilabiato, obtusove; spermatiis ovatis, biguttulatis, hyalinis, episporio crasso, 8 ≃ 4. 1558

Hab. in ligno putri salicino pr. Hattenheim Germaniæ; æstate spermogonia, hieme insequente perithecia ascophora.

14. **Ceratostomella multirostrata** (Fuck.) Sacc. *Ceratostoma multirostratum* Fuck. Symb. myc. p. 127, t. IV, fig. 41. — Peritheciis subsuperficialibus, rugulosis, globosis, aterrimis, magnitudine valde varia, $^1/_4$–$^1/_2$ lineæ diam., cum rostro perithecio plerumque æquali, cylindraceo, obtuso, perforato, antice plerumque cupulato-dilatato, aliis 2–6rostratis, rostris divergentibus, peritheciis 2–6nucleatis; ascis stipitatis, obliquis, oblongis, 8sporis, 44 ≃ 10; sporidiis distichis, oblongis, continuis, 10 ≃ 4, hyalinis. — Spermogonia *Sphæronematis* speciem sistunt, ostiolis acicularibus; spermatiis cylindraceis 6 ≃ 2 (nec 3 ≃ 2 ut in *Sph. cylindrico* Tode). 1559

Hab. in ligno putri Pini sylvestris prope Budenheim, Germania.

15. **Ceratostomella subsalsa** (Crouan) Sacc. *Sph. subsalsa* Crouan Finist. p. 25. — Peritheciis sphæroideis, in rostrum longum curvum attenuatis, 1-2 mill. diam., fusco-virescentibus; ascis crasse clavatis, octosporis; sporidiis ovoideis hyalinis, crasse 2-guttatis. 1560

Hab. in caulibus emortuis putridis Obiones, Finistere Galliæ.

16. **Ceratostomella sphærosperma** (Fuck.) Sacc. *Ceratostoma sphærospermum* Fuck. Symb. myc. pag. 127. — Peritheciis gregariis semiimmersis vel totis liberis, globosis, atris, in rostrum conicum seu abrupte cylindraceum, perithecium æquans attenuatis; ascis stipitatis, cylindraceis, 24 μ. long. p. sporif., sporidia 8, monosticha, simplicia, globosa, hyalina, 3 μ. diam., includentibus. 1561

Hab. in truncis putridis Pini sylvestris prope Johannisberg Germaniæ.

17. **Ceratostomella Stevensoni** (B. et Br.) Sacc. *Sph. Stevensoni* B. et Br. Ann. Hist. Nat. n. 1728. — Peritheciis sparsis v. hinc inde aggregatis, ovoideis, sursum attenuatis; ascis angustis; sporidiis monostichis, anguste ellipticis, 5 μ. long., 2-3-nucleatis. 1562

Hab. in ligno putri, Glamis Britanniæ.

18. **Ceratostomella canulata** (Preuss) Sacc. *Sph. canulata* Preuss, Fungi Hoyersw. n. 296. — Sparsa; peritheciis immersis globosis; ostiolis superficialibus, cylindricis, supra calvis, ad basin hyphis longis vestitis, ligno penetrantibus, atris, intus albis; ascis cylindricis, octosporis; sporidiis ovatis, albis, nucleum continentibus. 1563

Hab. in ligno vetusto, Hoyerswerda Germaniæ.

19. **Ceratostomella nyssæcola** (B. et C.) Sacc. *Sph. Nyssæcola* B. et C. North Am. Fungi n. 917. — Semiimmersa, subglobosa; collo elongato; sporidiis ellipticis, vel brevissime cymbæformibus, 7-8 μ. longis. 1564

Hab. in ramis Nyssæ in Pensylvania Amer. bor. — Sporidiorum color non indicatus.

20. **Ceratostomella leptorrhyncha** (Dur. et Mont.) Sacc. *Sph. leptorrhyncha* Dur. et Mont. Fl. Alg. p. 510 et Syll. Crypt. n. 817. — Gregaria; peritheciis minutis, basi immersis, sphæricis, atris, opacis, ostiolo longissimo, tereti, flexuoso nodosoque; ascis minimis, clavatis, 17 = 4, innumeris; sporidiis continuis, oblongis, 4-5 μ. long. hyalinis. 1565

Hab. in cortice Chamæropis humilis, La Calle Algeriæ.

CAMPTOSPHÆRIA Fuck. Symb. myc. p. 140 (Etym. *camptos*, flexus ob rostellum curvum). — Perithecia carbonacea, innato-erumpen-

tia, pyriformia, in collum obliquum, truncatum, cernuum, perforatum sensim attenuata, extus tenuissime sulphureo-villosa. Asci elongati, 8spori. Sporidia oblique monosticha, pyriformia, sæpe obliqua, continua, hyalina. Paraphyses filiformes.

1. **Camptosphæria sulphurea** Fuck. l. c. t. III, fig. 18. — Caulicola; 1566
peritheciis gregariis, majusculis, tectis, sulphureo-villosis, dein glabris, atris, ostiolis prominulis, crassis, cernuis, atris; ascis 148 ≃ 16; sporidiis oblique monostichis, subpyriformibus, hyalinis, 27 ≃ 10 (in parte latiori).

Hab. in caulibus putridis Peucedani officinalis, prope Hattenheim, Germania. — An *Sph. curvirostra* Sow. huc spectet improbabile videtur. Curiosum quod forma peritheciorum illam sporidiorum fere æmulatur.

GNOMONIELLA Sacc. Mich. II, p. 312 (Etym. a *Gnomonia,* cujus generis pars erat). — Perithecia submembranacea, subglobosa, subcutaneo-erumpentia, ostiolo rostellato centrali v. laterali. Asci cylyndraceo-clavati, octospori, aparaphysati, sæpius lumine apice bifoveolati. Sporidia continua, hyalina, ovoidea v. oblonga, v. rarius subfiliformia. Spermogonia in nonnullis nota.

I. *Eugnomoniella:* peritheciis discretis; sporidiis oblongis, nec bacillaribus.

1. **Gnomoniella tubiformis** (Tode) Sacc. *Gnomonia tubiformis* (Tode) 1567
Auersw. Syn. Pyr. p. 22, t. 8, fig. 121, *Sph. tubæformis* Tode Meckl. II, 51, fig. 128, *Ceratostoma tubæforme* Ces. et De Not. — Peritheciis hypophyllis, parenchymate innatis, gregariis vel subsparsis, subsphæroideis, brunneis, rostro stricto, cylindraceo, rigido, obtuso, perithecium fere æquante, concolore, epidermidem fuscatam et utrinque inflatam ad inferiorem folii paginam perforantibus, 0,4 mill. latit.; ascis oblongatis, e basi ampliata, paullisper attenuatis, subsessilibus, 45–70 ≃ 10–14, 8sporis; sporidiis subdistichis, oblongatis vel ellipsoideo-oblongatis, ut plurimum inæquilateralibus, simplicibus, vulgo guttulis minutis 2–4 præditis, hyalinis s. chlorinohyalinis, 13–15 ≃ 5,5–6,5. — Spermogonia (*Leptothyrium cylindrospermum* Bon.) epiphylla, convexa, depressa, orbicularia s. ovoidea, scutiformia, atra, nitida, ore simplici pertusa; spermatiis elongatis, simplicibus, hyalinis, 8–11 ≃ 1,5–2.

Hab. in foliis Alni glutinosæ (rarius Betulæ, Carpini, Ulmi?) in tota fere Europa et Amer. boreali.

2. **Gnomoniella amœna** (Nees) Sacc., *Gnomonia amœna* (Nees) Fuck. Symb. myc. p. 120, *Sph. amœna* Nees Act. Nat. Cur. IX, n. 4, t. 6, f. 24. — Peritheciis tectis subglobosis, ostiolis duplo longioribus filiformibus compressiusculis, discum elevatum roseum perforantibus, fragilissimis; ascis stipitatis oblongis, octosporis, 36 ≃ 8; sporidiis distichis fusiformibus, ellipticis, curvatis, continuis, 8 ≃ 4, 2-4-guttulatis, hyalinis. 1568

Hab. in petiolis foliorum Coryli Avellanæ in Germania, Suecia, Belgio, Gallia. — Var. *petiolorum* Schw. Syn. Car. n. 153. Peritheciis tectis, tuberculo albicante immersis atris, ostiolo tereti longiusculo rigido. In petiolis foliorum Liquidambaris, Fraxini etc. in Amer. boreali.

3. **Gnomoniella Avellanæ** (Schm.) Sacc. *Sph. Avellanæ* Schm. Myc. Heft. I, 84. — Sparsa, subhemisphærica, nigra, villis griseo-fuscis radiatim divergentibus obducta, ostiolo papillæformi atro-nitente; ascis cylindraceo-clavatis; sporidiis ovoideis, majusculis. 1569

Hab. ad folia decidua Coryli in Suecia, Britannia et Germania. — Perithecia exigua, opaca, intus lutescenti-alba.

4. **Gnomoniella spilota** (Lév.) Sacc. *Sph.* (epiphylla) *spilota* Lév. Ann. Scienc. nat. 5, 1846, p. 162. — Peritheciis gregariis minutissimis innatis nigris, ostiolis exsertis spinosis; ascis clavatis, paraphysatis (?), 8sporis; sporidiis ovoideis, continuis, hyalinis. 1570

Hab. ad folia ignota . . . . .

5. **Gnomoniella emarginata** (Fuck.) Sacc. *Gnomonia emarginata* Fuck. Symb. myc. p. 122. — Peritheciis sparsis, tectis, majusculis, lenticularibus, latere emarginatis, atris; ostiolis 1-1½ lin. longis, gracilibus, perithecii latere emarginato insertis, atris, teretibus, acutis; ascis ellipticis, stipitatis, 8sporis; sporidiis fusiformibus, sæpe curvatis, simplicibus, biguttulatis, hyalinis. — Status spermogonicus *Discosiam Arlocreas* f. *Betulæ* sistit. 1571

Hab. in Betulæ albæ petiolis foliisque putridis raro, prope Œstrich Rhenogovia. — Perithecia in nervis foliorum jam putredine exesorum tantum maturant. — Sec. Auersw. forma *G. setaceæ* (Pers.). An?

6. **Gnomoniella mirabilis** (Peck) Sacc. *Sph. mirabilis* Peck, 28 Rep. on the St. Mus. Now York, p. 80, t. 2, fig. 18-21. — Peritheciis sparsis, innatis, subglobosis, membranaceis, nigris; ostiolis longis tenuibus curvis v. flexuosis, lateralibus; ascis late fusoideis; sporidiis stipatis, elongato-fusoideis, 25-30 μ. longis, 4-pluriguttulatis, hyalinis, hinc v. utrinque breve appendiculatis. 1572

Hab. in foliis dejectis Betulæ, Bethlehem, Amer. bor. — Species ostiolo laterali, perithecium æquante mox dignota.

7. **Gnomoniella nervisequa** (Wall.) Sacc. *Sph. nervisequa* Wallr. Fl. Crypt. n. 3879. *Gnomonia nervisequa* (Wallr.) Fuck. Symb. myc. p, 122. — Peritheciis depresso-globosis exiguis atris erumpentibus, sparsis nervisequis, e vertice umbonato collum setaceum cylindricum triplo longius nitidum flexuosum libere prominens exserentibus; ascis curvato-stipitatis, oblongis, 36 ≃ 4, 8sporis; sporidiis ellipticis vel fusiformibus, 8 ≃ 2 simplicibus, hyalinis. 1573

Hab. ad nervos foliorum putridorum Salicis, Coryli, Alni, Carpini, in Germania frequens.

8. **Gnomoniella fasciculata** (Fuck.) Sacc. *Gnomonia fasciculata* Fuck. Symb. myc. p. 121. — Peritheciis gregariis, fasciculatis seu seriatim dispositis et confluentibus, tectis, media magnitudine, globosis; ostiolis longissimis, 1 lineam altis, fasciculato-exertis, rigidis, nudo oculo facile discernibilibus, atris; ascis amplis, utrinque acuminatis, 8sporis, 28 ≃ 8; sporidiis cylindraceis, utrinque obtusis (non acuminatis), curvatis, simplicibus, hyalinis, 12 ≃ 2. 1574

Hab. in petiolis nervisque primariis foliorum Quercus, rarius, pr. Œstrich Rhenogoviæ.

9. **Gnomoniella lugubris** (Karst.) Sacc. *Gnomonia lugubris* Karst. Myc. Fenn. II, p. 121. — Peritheciis sparsis parenchymate innatis, sphæroideis, siccis depressis, atris, rostro cylindraceo, obtuso, perithecii diametrum fere æquante, subconcolore, latit. 200–225 mill.; ascis sessilibus, fusoideo-oblongatis, 65–70 ≃ 12–15, octosporis; sporidiis distichis, fusoideo-oblongatis, inæquilateralibus, guttulis 4 majusculis, subchlorinis præditis, hyalinis, 18–20 ≃ 6. 1575

Hab. in foliis Comari palustris putridis socia *Sphærellæ innumerellæ* prope Mustiala Fenniæ.

10. **Gnomoniella Comari** (Karst.) Sacc. *Gnomonia Comari* Karst. Myc. Fenn. II. p. 122. — Peritheciis sparsis, epidermide subimmutata tectis eique detractæ subtus adhærentibus, sphæroideis, siccis depresso-sphæroideis, basique cupulæ instar collapsis, atris, rostro brevissimo, conoideo, epidermidem breviter perforante, 0,2–0,3 mill. diam.; ascis brevissime pedicellatis fusoideo-elongatis vel fusoideo-bacillaribus, 30–39 ≃ 6–7; sporidiis distichis, fusoideo-elongatis, vulgo rectis, guttulatis, chlorino-hyalinis, 6–9 ≃ 2. 1576

Hab. ad petiolos Comari palustris vetustos in insulis Quarken, circa Mustiala et in regione aboënsi (Fennia). — Facile jun-

gitur cum *Gnomoniella devexa* (Desm.) a qua fere modo sporidiis ascisque minoribus recedit.

11. **Gnomoniella? circinata** (Fuck.) Sacc. *Sph. circinata* Fuck. Symb. myc. p. 111. — Peritheciis gregariis, minutis, tectis, circa maculam fuscam circulariter dispositis, papillatis, atris, ostiolis prominulis; ascis oblongis, 8sporis; sporidiis oblongis, triguttulatis, hyalinis. — Sec. Fuck, st. conidicus sistit *Glœosporium Ribis* (Lib.). 1577

Hab. in pag. sup. fol. Ribis alpini prope Johannisberg Germaniæ. — An *Physalospora?*

12. **Gnomoniella vulgaris** (Ces. et De Not.) Sacc. *Gnomonia vulgaris* Ces. et De Not. Schem. Sfer. p. 57, *Sph. Gnomon* Tode Meckl. II, 50, fig. 125, *Cryptosphæria Gnomon* Grev. — Peritheciis sparsis, hypophyllis, primitus sphæroideis, innatis, tectis, deinde emergentibus, cupulato-collapsis (saltem in statu sicco), atris, rostro elongato, recto, sæpe apicem versus paullisper incrassato, perithecium æquante v. paullo excedente. concolore instructis, circiter 0,2 mill. diam.; ascis fusoideo-elongatis breviter et acute pedicellatis, 32-42 = 5-6; sporidiis conglobatis, bacillaribus, utrinque acutiusculis, 4-guttulatis, rectis vel leniter curvulis, hyalinis, 12-18 = 1-2. 1578

Hab. in foliis deciduis Coryli Avellanæ, Ostryæ virginicæ, in tota fere Europa et Amer. boreali.

13. **Gnomoniella Rosæ** (Fuck.) Sacc. *Gnomonia Rosæ* Fuck. Symb. mycol. p. 122. — Peritheciis sparsis, hypophyllis, tectis, majusculis, epidermidem pustulatim inflantibus; ostiolis perithecio triplo longioribus, exsertis, atris, strictis; ascis longe anguste stipitatis, ellipticis, 8sporis; sporidiis anguste cylindraceis, curvatis, 3-4guttulatis, hyalinis, asco duplo brevioribus. — Status spermogonicus, sec. Fuck., sistit *Discosiam clypeatam* f. *Rosæ.* 1579

Hab. in foliis dejectis Rosæ rubiginosæ, rarius, prope Œstrich, Rhenogovia.

14. **Gnomoniella Pruni** (Fuck.) Sacc. *Gnom. Pruni* Fuck. Symb. myc. p. 122. — Peritheciis sparsis, tectis, majusculis, globosis, atris, ostiolis perithecio duplo longioribus, strictis, rectis, aterrimis; ascis minutissimis, clavatis, in stipitem anguste protractis, 24-27 = 5-6, 8sporis; sporidiis anguste cylindraceo-fusiformibus, curvatis, sæpe 2- rarius 3-4-guttulatis, hyalinis, 10 = 1,5. 1580

Hab. in foliis putridis Pruni domesticæ et P. spinosæ, pr. Œstrich, Rhenogovia. — Var. *Padi* Lib. Lamb. Myc. Belg. II. p. 255, ostiolis perithecio triplo v. quadruplo longioribus. In foliis Pruni Padi in Belgio.

15. **Gnomoniella perfidiosa** (Karst.) Sacc. *Gnomonia perfidiosa* Karst. 1581
Symb. myc. II. p. 119. — Peritheciis sparsis, erumpentibus, dein liberis, sphæroideis, rostro brevi, conoideo, atris, latit. circiter 0,4 mill.; ascis subsessilibus, cylindraceis, 50–75 ≃ 6–7, octosporis; sporidiis monostichis, ellipsoideis, inæquilateralibus, simplicibus, hyalinis, eguttulatis, 6–9 ≃ 3–4.

Hab. in culmis foliisque graminum (Poæ?) exsiccatis prope Mustiala, Fennia, raro.

16. **Gnomoniella Angelicæ** (Fuck.) Sacc. *Sph. Angelicæ* Fuck. Symb. 1582
Mycol. p. 113. — Peritheciis sparsis, laxe seriatis, profunde, recte immersis, globosis, parvis, in collum aciculare, perithecio duplo longius, apice vix prominulum, ut punctiforme appareat, attenuatis, atris; ascis elongatis, 8sporis; sporidiis subdistichis, oblongo-ovatis, utrinque obtusis, simplicibus, 10 ≃ 3, hyalinis. — Spermogonium, sec. Fuck., sistit *Phomam complanatam* (Tode) Desm.

Hab. in caulibus putridis Angelicæ sylvestris, rarius, pr. Œstrich, Rhenogovia; forma spermogonica quoque in Belgio.

17. **Gnomoniella devexa** (Desm.) Sacc. *Gnom. devexa* (Desm.) Auersw. 1583
Myc. Eur. 23, fig. 58, 126, 137. *Sphæria devexa*, Desm. 24 Not. 1857, p. 21. — Caulicola, tecta; peritheciis minutis, gregariis vel sparsis, nigris, subhemisphæricis, inclinatis, intus griseis; ostiolis obliquis conico-elongatis, obtusis, subnitidis, epidermidem perforantibus; ascis subfusiformibus, clavatis, 35–40 ≃ 7–8; sporidiis octonis, rectis, utrinque obtusis, 4-guttatis, 15 ≃ 2–3.

Hab. in caulibus exsiccatis Polygoni Persicariæ, P. Fagopyri etc. in Gallia, Germania, Belgio, Britannia. — Var. *media* Sacc. (nec *Sph. Euphorbiæ* Fuck.). Ascis clavatis, apice subtruncatis lumineque 2-foveolatis, 50 ≃ 14 p. sporif., deorsum attenuatis octosporis; sporidiis fusoideis curvulis v. rectis, medio constrictis, 18–20 ≃ 4, 4-guttulatis, utrinque breviter apiculatis, hyalinis, peritheciorum ostiolis, rectiusculis. In caulibus Euphorbiæ dulcis et palustris in Italia bor. et Gallia.

18. **Gnomoniella curvicolla** (Peck) Sacc. *Sphæria curvicolla* Peck 1584
31 Rep. on the St. Mus. New York. — Peritheciis minutis, 80–100 μ. diam., sparsis v. 2–3 confluendo aggregatis, erumpentibus, denique nudis, hemisphæricis, nigris; ostiolis brevibus subcylindricis, leniter curvis; ascis oblongis; sporidiis stipatis v. distichis, 15–23 ≃ 7,5, hyalinis.

Hab. in caule putri Polygoni articulati, Center, Amer.

bor. — Ostiolo curvulo tereti v. compressiusculo, sæpius versus plantæ matricis apicem inclinato mox dignoscenda species.

19. **Gnomoniella excentrica** (C. et P.) Sacc. *Sphæria excentrica* C. et Peck. 25 Rep. on the St. Mus. — Peritheciis sparsis, depressis, nigris, initio epidermide tectis, dein ostiolo acuto rostellato laterali erumpentibus et subsuperficialibus; ascis subclavatis; sporidiis stipatis v. distichis, fusoideis, 8,5–9 μ. longis, 4-nucleatis, hyalinis. 1585

Hab. in caule putri Polygonorum, Albany et Portville, America boreali.

20. **Gnomoniella Amygdalinæ** (Fuck.) Sacc. *Gnomonia Amygdalinæ* Fuck. Symb. myc. p. 121. — Peritheciis sparsis, tectis, globosis, *Pleosporæ herbarum* magnitudine, atris, ostiolis exertis, perithecio duplo longioribus, concoloribus, cylindraceis, rectis; ascis oblongis, 46 ≃ 8, 8sporis; sporidiis distichis, fusiformibus, parum curvatis, utrinque subtilissime apiculatis, 4guttulatis, hyalinis, 14 ≃ 4. 1586

Hab. in caulibus siccis Euphorbiæ amygdalinæ in Jura Helvetiæ (Morthier). — *Gnomoniæ devexæ* v. *mediæ* et *Gn. Euphorbiæ* valde affinis, at distinguenda.

21. **Gnomoniella Euphorbiæ** (Fuck.) Sacc. *Gnomonia Euphorbiæ* Fuck. Sacc. Mich. II, 312, *Sphæriæ Euphorbiæ* Fuck. Enum. Fung. Nass. p. 69, t. I. fig. 23. — Peritheciis tectis, subtus collabascendo excavatis, *Pleosporam herbarum* subæquantibus, aterrimis, ostiolis papillatis, obliquis, epidermidem perforantibus; ascis tereti-clavatis, deorsum attenuatis, apice 2-foveolatis truncatisque, 90 ≃ 20; sporidiis distichis, breve fusoideis, inæquilateralibus, 20 ≃ 8, 2–4-guttatis, hyalinis. 1587

Hab. in caulibus Euphorbiæ palustris et verrucosæ in Nassovia et Helvetia. — A *Gnom. devexa* præcipue sporidiis duplo crassioribus differt.

22. **Gnomoniella idæicola** (Karst.) Sacc. *Gnomonia idæicola* Karst. Symb. myc. II, p. 126. — Peritheciis epidermide plerumque infuscata tectis eique solutæ adhærentibus, solitariis vel 2–5 in soros stipatis, sphæroideis, siccis, collapsis, nigris, ostiolis sphæroideis, per epidermidem erumpentibus, subinde confluentibus, concoloribus instructis, latit. 0,2 mill.; ascis fusoideo-clavatis, 30–40 ≃ 6–7 octosporis; sporidiis distichis, fusoideo-elongatis, rectiusculis vel leviter curvulis, guttulatis, chlorino-hyalinis, 8–12 ≃ 2–2,5. 1588

Hab. ad ramulos emortuos Rubi idæi circa Mustiala Fenniæ.

II. *Mamiania:* peritheciis sub pseudostromate phyllogeno nigro hinc inde congregatis; sporidiis ovoideis.

23. **Gnomoniella fimbriata** (Pers.) Sacc. *Sph. fimbriata* Pers. Symb. p. 36. *Gnomonia fimbriata* (Pers.) Fuck. Symb. myc. pag. 120. *Mamiania fimbriata* (Pers.) Ces. et De Not. — Tecta, peritheciis confertis in tuberculum nigrum confluentibus, ostiolis erumpentibus spinulosis, basi fimbria albicante cinctis; ascis fusoideo-oblongis, 45–50 ≃ 10–12, octosporis; sporidiis distichis, ellipsoideis, hic obtusiusculis hinc acutiusculis, 2-guttulatis, hyalinis v. dilute chlorinis, 10–11 ≃ 5. St. conidicus refert *Glœosporium Carpini* Desm. 1589

Hab. in foliis Carpini Betuli in tota fere Europa et Amer. bor. — Tubercula in utraque folii pagina prominent, primo planiuscula atra, demum convexa, ob epidermidem cinerascenti-atra; perithecia in parenchymate folii nidulantia globosa; ostiola in pagina inferiori tantum erumpunt distantia, teretia, lævia, æqualia v. clavata, recta v. deflexo-flexuosa.

24. **Gnomoniella Coryli** (Batsch.) Sacc. *Gnomonia Coryli* Batsch. Auersw. Syn. Pyr. eur. p. 23, t. 8, f. 123. *Sphæria Coryli* Batsch. El. Fung. Cont. II. fig. 231. — *Mamiania Coryli* De Not. Schema p. 57. — Peritheciis hypophyllis, distinctis, in circulum dispositis, parenchymati innatis, epidermide atrata et inflata utrinque tectis, depresso-sphæroideis, subincoloratis, rostro crasso, cylindraceo, atro, perithecii altitudinem feræ æquante, discum minutum, pallidum perforante præditis, latit. 0,3 mill.: ascis clavatis, in pedicellum brevem, tenuem acuminatis, 36–40 ≃ 7, 8sporis; sporidiis distichis, obovoideis, simplicibus, subhyalinis, intus granulosis, 7 ≃ 3. — Spermogonia (*Leptothyrium Coryli* Fuck.) scutiformia, in macula exarida, obscuriori sparsa, demum applanata plicataque, atrofusca, nitida, minutissima; spermatiis vermicularibus, curvatis, linearibus, multiguttulatis, hyalinis, 18 ≃ 2. 1590

Hab. in pag. inf. foliorum Coryli Avellanæ in tota fere Europa et Amer. bor., plerumque in montosis.

III. *Ophiognomonia*: sporidiis bacillari-filiformibus.

25. **Gnomoniella melanostyla** (DC.) Sacc. *Gnomonia melanostyla* (DC.) Fuck. Symb. myc. p. 122. *Sph. melanostyla* DC. Fl. Fr. VI. p. 129. — Peritheciis subrotundis tectis e rufescente-nigris, ostiolo gracili æquali nigro, 5–6-plo longiore; ascis elliptico-oblongis, deorsum attenuatis, stipitatisque, 60 ≃ 5, aparaphysatis, tunica apice in- 1591

crassata; sporidiis octonis, elongato-filiformibus, 25–35 ≃ 1–2, parallelis, utrinque acuminatis, hyalinis.

Hab. in foliis dejectis Tiliæ europeæ et americanæ sæpius hypophylla in Suecia, Germania, Gallia, America boreali. — Ostiola modo stricta, modo subtorta. Asci jodi ope apice leniter cœrulescunt.

LÆSTADIA Auersw. in Hedw. 1869, p. 177 reform. (Etym. a Doct. *C. P. Læstadio*, Sueco). — Perithecia lenticularia, innata, membranacea, typice poro simplici pertusa, subinde subastoma. Asci aparaphysati, octospori, sæpius clavulati. Sporidia ovoidea v. oblonga, continua, hyalina. — Fungilli minuti, sæpius foliicolæ, *Sphærellæ* analogi, sed amerospori,

1. **Læstadia punctoidea** (Cooke) Auersw. in Hedw. 1869, n. 12, p. 178 et in Myc. Eur. t. 1, fig. 8, *Sphærella punctoidea* Cooke Handb. n. 2751. — Peritheciis epiphyllis rarius hypophyllis, epidermidi innatis, in maculas minores collectis, humidis depresso-sphæroideis, siccis pezizoideo-collapsis, atris, nitidis, 180 μ. latit.; ascis cylindraceo-clavatis, curvulis, octosporis, 50–60 ≃ 10; sporidiis subdistichis, oblongatis, utrinque attenuatis, simplicibus, eguttulatis, hyalinis, 10–16 ≃ 4–6. 1592

   Hab. in pag. superiore foliorum Quercuum in Britannia, Belgio et Fennia.

2. **Læstadia alnea** (Fr.) in Hedw. 1869, n. 12, p. 177 et in Myc. Eur. Pyr. t. II, fig. 15, *Sph. alnea* Fr. S. M. II, 520. — Peritheciis hypophyllis, sparsis, epidermide tectis eaque sublata liberis, depresso-sphæroideis, siccis cupulæ instar collabentibus, 0,2 mill. latit. ostiolo papillato, erumpente, dein, in peritheciis collapsis, obsoleto, ascis clavatis in pedicellum tenuem attenuatis, 60–80 ≃ 10–12, octosporis; sporidiis distichis, fusoideo-oblongatis v. fusoideo-elongatis, utrinque acutiusculis, rectis, 2–4-guttulatis, hyalinis, 14–18 ≃ 3–4. 1593

   Hab. in foliis putridis Alni glutinosæ in Suecia, Fennia, Germania, Belgio.

3. **Læstadia Rosæ** Auersw. Hedw. 1869, p. 178, *Sph. Roscæ* Auersw. in Myc. Eur. t. 7, fig. 97. — Peritheciis hypophyllis, epidermidi adnatis, nigris, nitidulis, siccis rugulosis, *Discosiam* fere æmulantibus, gregariis, 100 μ. fere latis; ascis amplis obovato-oblongis, brevissime stipitatis octosporis, 50 ≃ 18; sporidiis distichis, ellipticis utrinque rotundatis, continuis, granulosis, 15 ≃ 7, hyalinis. 1594

Hab. in pag. infer. foliorum Rosæ caninæ prope Arnstadt Germaniæ (Fleischhack).

4. **Læstadia Cerris** Pass. Micr. ital. n. 2, in Rev. myc. II, p. 33. — Maculis discoideis in foliis vivis expallentibus; peritheciis immersis globosis, atris, luce transversa præsertim perspiciendis, cellulis amplis irregulariter hexagonis vel trapezoideis contextis; ascis clavatis basi attenuato-stipitatis, numerosis, cæspitosis, 42 ≃ 7, 8-sporis; sporidiis ovalibus, integris, endoplasmate granuloso opaco, 10 ≃ 5; paraphysibus non visis. 1595

Hab. in foliis vivis Quercus Cerris, per hyemem tantum humi maturans, Collechio Parmæ, in Italia boreali.

5. **Læstadia Cookeana** (Auersw.) Sacc. Fungi Ven. Ser. V, p. 175, Fungi ital. t. 544, *Sphærella punctiformis* Cooke Handb. n. 2750, nec Pers. *Sph. Cookeana* Auersw. in Myc. Eur. Pyr. 2, t. 1. f. 6. — Sparsa; peritheciis innatis, punctiformibus, globoso-lenticularibus, dein umbilicatis; ascis clavulatis 40-45 ≃ 9-10, aparaphysatis, octosporis; sporidiis ovoideo-oblongis, 6-9 ≃ 3-4, continuis, granulosis, chlorino-hyalinis. 1596

Hab. in foliis dejectis quercinis in Britannia, Germania, Gallia et Italia.

6. **Læstadia radiata** (Wallr.) Sacc. *Sphæria radiata* Wallr. Crypt. n. 3729, Mont. Pl. Cellul. VIII, p. 66. — Peritheciis hypophyllis minutissimis sparsis, nigris, hemisphæricis, summam epidermidis pelliculam tenuissimam hyalinam veluti in fibrillulas radiantes divulsam elevantibus; ascis exiguis clavato-lanceolatis, obtusis, octosporis; sporidiis fusiformi-oblongis, conformibus, continuis, hyalinis. 1597

Hab. ad folia Sorbi torminalis in Germania. — *Læstadia Cookeanæ* peraffinis videtur.

7. **Læstadia Niesslii** Kunze Fungi sel. exsic. n. 241, Rehm. Ascom. n. 593, Hedw. 1881, p. 53. — Peritheciis sæpius epiphyllis, hinc inde dense gregariis, initio epidermide velatis, globoso-depressis, 150 μ. diam., ostiolo obsoleto, denique subumbilicatis, nigris; ascis clavatis, crasse tunicatis, 60 ≃ 9, octosporis, pseudoparaphysatis; sporidiis elliptico-oblongis, rectis curvulisve, obtusiusculis 9-11 ≃ 3,5-4, hyalinis, distichis. 1598

Hab. in foliis emortuis Populi dilatatæ prope Eislaben Germaniæ.

8. **Læstadia socia** Penz. Fung. Agrum. n. 20. — Peritheciis hinc inde laxiuscule gregariis, epidermide velatis, globoso-depressis, subinde umbilicatis, poro pertusis, 180-200 μ. diam., contextu paren- 1599

chymatico, fusco; ascis clavulatis breve et crassiuscule stipitatis, 50–60 ≃ 10–13, aparaphysatis, apice rotundatis, octosporis; sporidiis imbricato-distichis, ex oblongo breve fusoideis, subinde inæquilateralibus, utrinque obtusiusculis, 14–18 ≃ 5–6, granulosis, hyalinis.

Hab. in utraque pagina foliorum Citri Limonii dejectorum, Carini, Sicilia (Beltrani), sociis *Sphærella sicula* Penz. et *Volutella fusarioide* Penz. — Partes foliorum expallentes inhabitat, dum *Sphærella* maculas nigro-cinerascentes efficit.

9. **Læstadia Veneta** Sacc. et Speg. Mycoth. Ven. n. 1266, Mich. I, 351, Fungi ital. t. 355, — Perithecis sparsis, foliorum parenchymate immersis, denique epidermidem operculatim dirumpentibus, e globoso lenticularibus, nitidulis, 120–150 micr. diam., atris, ostiolo minutissimo papillulato, contextu dense parenchymatico, fuligineo; ascis late cylindraceis v. cylindraceo-clavatis breve attenuato-stipitatis, 48–55 ≃ 12–13, apice tunica incrassata perforataque rotundatis, aparaphysatis, octosporis; sporidiis distichis vel inordinate tristichis, oblongo-fusoideis, 14–16 ≃ 4–5, anguste limoniiformibus, utrinque obtusiusculis, raro leniter inæquilateralibus, non v. utrinque minute 1-guttulatis, hyalinis. 1600

Hab. in foliis Platani occidentalis dejectis, Padova, Italiæ (C. Speggazzini). — Sporidia tandem prope basim (ex interruptione plasmatis) spurie septata fiunt, quo charactere ad *Apiosporam* nutant.

10. **Læstadia cylindrasca** Sacc. et Speg. Mich. I, 369, Fungi ital. t, 356. — Peritheciis ut præcedentis, diam. 100 μ., ostiolo 30 diam. contextu laxe parenchymatico fuligineo; ascis cylindraceis 75–80 ≃ 5–6, aparaphysatis, octosporis; sporidiis monostichis, oblongo-limoniiformibus, 12–15 ≃ 3–4, 2-guttulatis, hyalinis. 1601

Hab. in foliis languidis Platani orientalis, Conegliano, Ital. boreali (Speggazzini). — A *L. Veneta*, cui peraffinis, præcipue ascis cylindraceis angustis diversa.

11. **Læstadia contecta** (Desm.) Sacc. *Sph.* (Depazea) *contecta* Desm. 14. Not. p. 37, 1847. — Maculis amphigenis, subrotundatis vel irregularibus, pallide rufescentibus, exaridis, ambitu brunneo-cinctis; peritheciis hypophylis, subglobosis, demum depressis, epidermide tectis; ascis clavatis, subtorulosis 50 μ. longis; sporidiis ovoideis 20. μ. long. 1–2-globoso-guttulatis. 1602

Hab. ad folia viva Quercus cocciferæ, in Gallia.

12. **Læstadia Areola** (Fuck.) Sacc. *Sphærella Areola* Fuck. Symb. Myc. p. 105, Auersw. Myc. Eur. Pyr. 2, fig. 85. — Peritheciis 1603

hypophyllis, in macula areolata, cinerascenti, gregariis, hemisphæricis, opacis, atris, subtilissime papillatis, 80–100 μ. diam.; ascis fasciculatis, oblongis, sessilibus, 8sporis, 40–60 ≃ 10; sporidiis distichis, oblongo-ovatis subclavatisve, simplicibus, 12 ≃ 4–5.

Hab. in foliis putridis Quercus, prope Budenheim Germaniæ.

13. **Læstadia acerifera** (Cooke) Sacc. *Sphærella acerifera* Cooke Handb. n. 2755. — Hypophylla; peritheciis sparsis, innatis, globosis, minutis, nigris; ascis late cylindraceis; sporidiis naviculatibus, hyalinis, 2-guttulatis, 20 ≃ 6–7. 1604

Hab. in foliis putrescentibus Aceris campestris, Shere, Surrey, Britanniæ.

14. **Læstadia sylvicola** Sacc. et Roum. Reliq. mycol. Libert. II. n. 114, t. XIX, f. 8. — Peritheciis gregariis, innatis, globoso-depressis, 100–120 μ. diam., contextu parenchymatico ochraceo-fusco circa ostiolum punctiforme subhyalino; ascis cylindraceis breve stipitatis, 80–90 ≃ 9–10, aparaphysatis, octosporis; sporidiis sæpius monostichis ellipsoideo-oblongis, 10–12 ≃ 5–6, hyalinis. 1605

Hab. in foliis Quercus Roboris amphigena, Malmedys, Gallia et Germania.

15. **Læstadia Systema solare** (Fuck.) Sacc. *Sph. Systema-solare* Fuck. Symb. Myc. p. 111, tab. III, fig. 27. *Depazea Systema-solare* Crié, Dep. p. 38, t. VI, fig. 5. — Peritheciis circa discum applanatum, orbicularem, lineam latum, atrum, glabrum gregarie-dispositis, pusillis, ab epidermide albicante tectis, globosis, ostiolis prominulis, parum setulosis, atris; ascis stipitatis, linearibus, rectis, 8sporis, 58 ≃ 6; sporidiis monostichis, obovatis, simplicibus, uniguttulatis, dilute flavis, 7 ≃ 5. — Spermogonium sistit *Phyllosticlam cornicolam* (DC.) Rabh. 1606

Hab. in pag. sup. Corni sanguineæ, rarius prope Hattenheim Germaniæ, Sarthe Galliæ.

16. **Læstadia excentrica** (Crié) Sacc. *Depazea excentrica* Crié, Sur les Depazéées, p. 38, tab. VI, fig. 8. — Maculis excentricis amphigenis albidis zona nigra cinctis; peritheciis epi-hypophyllis, nigris; ascis clavatis crassiusculis, breve crasse stipitatis, octosporis; sporidiis continuis, ovato-oblongis, hyalinis, 10–12 ≃ 4–5. — Spermogoniis *Phomam cylindrosporæ* affinem sistentibus, spermatiis cylindraceis utrinque obtusis, 25–30 μ. long. 1607

Hab. in foliis Buxorum hiemali tempore in Gallia.

17. **Læstadia perpusilla** (Desm.) Sacc. *Sphæria* (foliicola) *perpusilla*, Desm. 13 Not. 1846, p. 80. — Epiphylla; peritheciis minutissimis 1608

sparsis, nigro-fuscis, innato-prominulis, poro pertusis; ascis tubulosis, 50 μ. longis; sporidiis ovoideo-oblongis 5 μ. longis.

Hab. in foliis siccis Phragmitis et Graminum variorum in Gallia, Britannia, Belgio, Italia.

18. **Læstadia microspora** (Auersw.) Sacc. *Sphærella microspora* Auersw. Myc. Eur. Pyr. p. 16, fig. 76. — Peritheciis hypophyllis nigris, epidermide tectis translucentibus, undique dense sparsis v. inter fibras subseriatis, globosis, poro pertusis, 60 μ. diam.; ascis ovato-oblongis e basi ampliata, substipitatis, octosporis, 36 ≃ 10; sporidiis subtristichis, stipatis, oblongo-fusoideis, utrinque acutiusculis, rectis, continuis, 4-nucleolatis, 10 ≃ 1,5, hyalinis. 1609

Hab. in foliis siccis Milii effusi in Germania.

19. **Læstadia canificans** (Fuck.) Sacc. *Sphærella canifaciens* Fuck. Symb. myc. p. 101. — Peritheciis sparsis gregariisve, Sphæriæ punctiformis magnitudine, globosis, papillatis, dein liberis, atris; ascis fasciculatis, oblongo-clavatis, 8sporis, 50 ≃ 10; sporidiis subdistichis, ovato-oblongis, hyalinis, 10 μ. longis. 1610

Hab. in foliis nondum emortuis Tritici repentis pr. Œstrich, Rhenogovia. — Folia fungillo infecta fere cana evadunt.

20. **Læstadia rhytismoides** (Berk.) Sacc. *Sphæria rhytismoides* Bab. et Berk. Brit. Fungi n. 178, *Sphærella rhytismoides* De Not. Recl. Pir. p. 12. *Sph. Dryadis* Fuck. Symb. myc. p. 108, t. II, fig. 41. — Epiphylla; peritheciis majusculis, in macula indeterminata, fusca semiimmersis, globosis, aterrimis, perforatis, demum depressis; ascis fasciculatis, stipitatis, clavatis, 8sporis, 50–58 ≃ 14–16; sporidiis distichis v. inordinatis, oblongo-ovatis, subinæquilateralibus, utrinque obtusis, guttulatis, 14–16 ≃ 5–6, hyalinis. 1611

Hab. in pag. sup. foliorum nondum emortuorum Dryadis octopetalæ in Britannia, Spitzbergia, Sibiria asiatica, Germania, Italia. — Nucleus peritheciorum roseus.

21. **Læstadia attenuata** (Crié sub Dep.) Sacc. Crié Sur les Depazéées pag. 39, tab. VI, fig. 7. — Maculis indeterminatis; peritheciis epi-hypophyllis nigris; ascis longe pedicellatis; sporidiis ellipticis, hyalinis, continuis v. diblastis, guttulatis, 13–14 ≃ 4–5. 1612

Hab. in Gallia, in foliis arborum nostratium, hieme, sociis spermogoniis (*Septoria*) et pycnidibus (*Hendersonia*).

22. **Læstadia angulata** (Fuck.) Sacc. *Sphærella angulata* Fuck. Symb. myc. App. II, p. 20. — Peritheciis hypophyllis, dense gregariis, gregibus inter foliorum nervos primarios maculas angulatas, a nervis limitatas, nigras formantibus, minutis, globoso-conicis, sub epi- 1613

dermide natis, demum subliberis, perforatis, lævibus; ascis fasciculatis, subcylindraceis, sessilibus, plerumque curvatis, 8sporis, 40 ≃ 8; sporidiis distichis, lanceolato-clavatis, continuis, plerumque curvatis, hyalinis, 12 ≃ 2.

Hab. in pag. infer. foliorum putrescentium Berberidis vulgaris, raro prope Œstrich, Germania. — Peritheciis nitidis, densis, minutis a *Sphærella Berberidis* Nits. mox dignoscenda.

23. **Læstadia echinophila** (Ces.) Sacc. *Sphæria echinophila* Ces. Unio 1614
it. crypt. n. XXI, *Sphærella echinophila* Auersw. Myc. Eur. Pyr. p. 3, fig. 103. — Peritheciis nigris, adnatis, sparsis, depresso-globosis, poro pertusis, variæ magnitudinis; ascis clavato-teretibus, sessilibus, 27 ≃ 4, octosporis; sporidiis distichis cylindraceo-oblongis, utrinque rotundatis, curvulis, continuis, 4 ≃ 1, hyalinis.

Hab. in spinis capsularum Castaneæ vescæ in Italia.

24. **Læstadia Cephalariæ** (Auersw.) Sacc. *Sphærella Cephalariæ* 1615
Auersw. Myc. Eur. Pyr. p. 14, fig. 67. — Peritheciis epiphyllis olivaceis, epidermide tectis, centro maculæ minutæ pallidæ insidentibus, subglobosis, poro pertusis, subconfluentibus, 90–100 μ. d.; ascis clavato-oblongis, sessilibus, 8-sporis, 46 ≃ 10; sporidiis distichis obovato-oblongis, utrinque rotundatis, continuis, 12–14 ≃ 4, subluteolis, subinde 1-guttulatis.

Hab. in pag. sup. foliorum Cephalariæ alpinæ emortuorum in Germania. — An sporidia tandem septata?

25. **Læstadia lusitanica** (Auersw.) Sacc. *Sphærella lusitanica* Auersw. 1616
Myc. Eur. Pyr. p. 15, fig. 62. — Peritheciis nigris, epidermide tectis, depresso-globosis, poro pertusis, dense sparsis, copiosis, 60–100 μ. diam.; ascis obovatis, breve stipitatis, 55 ≃ 21, octosporis; sporidiis 2–3-stichis, obovatis, apice rotundatis, infra obtusis, continuis, 14 ≃ 5–6, pallidis, nubilosis.

Hab. in Dianthi lusitanici caule in Sierra nevada Lusitaniæ. 1617

26. **Læstadia Marii** (De Not.) Sacc. *Sphærella Marii* De Not. Recl. Piren. in Comm. II, p. 488. — Epidermide primum tecta, demum denudata, sparsa, punctiformis, atra; peritheciis rotundatis, vertice obtuse conoideis, ostiolo latiusculo dehiscentibus, basi cubilibus insculptis, fibris dematiaceis villosis, molliusculis, cellulis turgidis fuscescentibus contextis; ascis copiosis crassis, oblongatis, octosporis; paraphysibus nullis; sporidiis oblongatis, simplicibus, hyalino-luteolis, granulis exiguis fœtis.

Hab. in caulibus emortuis Nicotianæ Tabaci, Chiasso, Cantone Ticino, Italiæ bor. et Helvetiæ.

27. **Læstadia minutissima** (Auersw.) Sacc. *Sphærella minutissima* 1618
Auersw. in Myc. Eur. Pyr. p. 3, fig. 89. — Peritheciis hypophyllis et epiphyllis, nigris, subnitidulis, epidermide innatis, gregariis, maculas nigras angulosas, minutas, nudo oculo inconspicuas, $^1/_2$–1 mill. diam., formantibus, globosis v. depresso-globosis, poro pertusis, 70–80 μ. diam.; ascis clavatis, subsessilibus, 27 ≃ 4–5; sporidiis distichis, stipatis, v. submonostichis, oblongis, continuis, hyalinis, 8–2, guttulatis.

Hab. in foliis Alni glutinosæ languidis in Germania.

28. **Læstadia carpinea** (Fr.) Sacc. F. it. t. 543. *Sph. carpinea* Fr. 1919
M. II. 523. *Sphærella carpinea* (Fr.) Auersw. *Ascospora carpinea* Fr. S. V. S. p. 425 (Nec *Sphærella* (Apiospora *carpinea* Rehm, Asc. n. 496 (Cfr. *Hypospila*). — Gregaria, innata; peritheciis globoso-depressis, inæqualibus, nigris, ostiolo obsoleto; ascis cylindraceo-clavatis, deorsum attenuatis, 50–60 ≃ 8, aparaphysatis, octosporis; sporidiis oblongo-ellipsoideis, inæquilateralibus, hyalinis, 14–15 ≃ 4–5, varie guttulatis.

Hab. in foliis exaridis Carpini Betuli et C. Americanæ in Britannia, Germania, Suecia, Belgio, Gallia, Italia et America boreali. — Perithecia, epidermide consumpta, subnuda, vix pertusa, late gregaria.

29. **Læstadia millepunctata** (Desm.) Sacc. *Dothidea millepunctata* 1620
Desm. 14 Not. p. 177. *Stigmatea millepunctata* Kickx Fl. crypt. Fl. I. 366. — Peritheciis minutissimis punctiformibus, copiosis, sparsis v. aggregatis, nigris, erumpentibus epidermidem non atrantibus ostiolo obsoleto; nucleo albo; ascis subclavatis, 40 μ. longis; sporidiis ovoideis v. subcylindraceis, brevibus, utrinque obtusis, 2–3-guttulatis, 7–10 μ. longis.

Hab. in utraque pagina foliorum Rhododendri arborei in hortis Galliæ et Belgii.

30. **Læstadia Pinastri** (DC.) Sacc. *Sphæria Pinastri* DC. Fl. Fr. VI. 1621
p. 133. *Sphærella Pinastri* Cooke Handb. n. 2757. — Peritehciis globosis depressis immersis, in collum breve epidermidem perforans productis, ostiolo non prominulo; ascis clavatis; sporidiis stipatis, ellipticis, subinde acuminatis, hyalinis, 7,5–10 μ. longis.

Hab. ad folia dejecta Pinorum in Gallia, Britannia, Germania, Suecia. — Perithecia sparsa, in parenchymate foliorum nidulantur, plerumque ad alterutrum latus nervi medii disposita, nigra, collo brevi truncato in utraque folii pagina erumpente.

31. **Læstadia cooperta** (Desm.) Sacc. *Sphæria* (foliicola) *cooperta*, 1622

Desmaz. 17 Not. 1849, p. 29, *Sphærella cooperta* Auersw. in Myc. Eur. Pyr. p. 6 (nec fig. 13). — Hypophylla, sparsa; peritheciis minutis, numerosis, astomis, nigris, in parenchymate folii nidulantibus, epidermide tectis; ascis octosporis exacte clavatis 50 μ. longis; sporidiis ovoideo-oblongis, 7 ≃ 3, hyalinis.

Hab. in foliis delapsis Quercus cocciferæ in Gallia.

32. **Læstadia? jasminicola** (Desm.) Sacc. *Sphæria* (foliicola) *jasminicola* Desm. 13 Not. 1846, p. 83. — Amphigena, gregaria, innato-prominula, atra; peritheciis minutissimis poro apertis, intus cinereis, in macula albida insidentibus; ascis.....,; sporidiis exillimis 4–5 μ. longis, oblongis, utrinque obtusis, 2-guttulatis. 1623

Hab. in foliis Jasmini officinalis in Gallia.

33. **Læstadia Bupleuri** (Dur. et Mont.) Sacc. *Sph. Bupleuri* Dur. et Mont. Fl. Alg. p. 538. Mont. Syll. Crypt. n. 876. — Amphigena; peritheciis gregariis epidermide sublevata decolorataque tectis, innato-prominulis, minutissimis subglobosis atris, intus albis, poro simplici pertusis; ascis sacciformibus, 50 ≃ 20, sporidia 8 fusiformia hyalina granulosa, 25 ≃ 6, foventibus. 1624

Hab. in foliis Bupleuri spinosi, in summo monte Atlante Algeriæ (Durieu).

34. **Læstadia Acetabulum** (Berk.) Sacc. *Sphæria* (foliicola) *Acetabulum* Berk. in Fl. Nov. Zel. II, 206, t. CVI, fig. 2. — Hypo- et epiphylla; peritheciis tectis depressis subirregularibus, omnino astomis, supra collapsis, subtus convexis; ascis oblongis attenuato-truncatis breve stipitatis; sporidiis (immaturis) oblongis, continuis, hyalinis. 1625

Hab. in foliis Corynocarpi lævigatæ, Apiti Novæ Zelandiæ (Colenso).

35. **Læstadia fraxinicola** (Curt. et Peck) Sacc. *Depazea fraxinicola* Curt. et Peck 23. Rep. on the St, Mus. p. 65. — Maculis arescentibus, subcircularibus, subinde fusco-marginatis, 7–14 mill. diam.; peritheciis nigris, subumbilicatis, centroque papillatis; ascis fusoideis, 4–8-sporis; sporidiis dense stipatis, oblongo- v. angusto-elipticis, utrinque minute guttulatis, 12–15 ≃ 4–5. 1626

Hab. in foliis Fraxini americanæ, Albany, Amer. bor.

35. **Læstadia minuscula** (Lév.) Sacc. *Sphæria* (foliicola) *minuscula* Lév. Ann. Scienc. nat. 5, 1846, p. 260. — Peritheciis epiphyllis, adnatis, sparsis, punctiformibus hemisphæricis nitidis, ostiolis nullis; ascis clavatis, octosporis, aparaphysatis; sporidiis ovoideis v. subpyriformibus, continuis, hyalinis. 1627

Hab. in Java ad folia Codiæi variegati (Zollinger).

36. **Læstadia Mappa** (Berk.) Sacc. *Depazea Mappa* Berk. Dec. n. 305, t. I, fig. 3. Hook Journ. 1851, p. 18. — Amphigena; maculis subannulatis, sinuosis versicoloribus fusco-limitatis; peritheciis punctiformibus, olivaceis; ascis brevibus fusoideis, fasciculatis, subsessilibus, octosporis; sporidiis distichis, tereti-oblongis, continuis, hyalinis. 1628

Hab. in foliis coriaceis, Caripi Brasiliæ (Spruce).

37. **Læstadia nebulosa** (De Not.) *Sphærella nebulosa veneta* De Not. in Hedw. vol. V. (1866) p. 44. — Peritheciis subepidermicis, rotundatis, vertice obtuse umbonato ostiolatis; ascis e placenta basali grumosa, deorsum attenuatis, oblongatis, aparaphysatis, octosporis; sporidiis fusoideis, minute-pluriguttulatis, hyalinis, 10 ≃ 5. 1629

Hab. in caulibus siccis Peucedani Veneti pr. Bolzano Tyroliæ (Hausmann). — Habitus *Sphærellæ nebulosæ*, sed amerospora.

38. **Læstadia fœda** (Lév.) Sacc. *Sphæria* (epiphylla) *fœda* Lév. Ann. Scienc. nat. 5, 1846, p. 261. — Peritheciis epiphyllis, gregariis, innatis, macula pallida insidentibus, globosis nigris, ostiolis punctiformibus; ascis oblongis v. cylindraceis, aparaphysatis, octosporis; sporidiis monostichis, ovoideis continuis, hyalinis, 1-nucleatis. 1630

Hab. in Chili ad folia Graminearum (Gay).

39. **Læstadia Melastomatum** (Lév.) Sacc. *Sphæria* (epiphylla) *Melastomatum* Lév, Ann. Scienc. nat. 3, 1845, p. 54. — Hypophylla, peritheciis innatis gregariis globosis rugulosis nigris, ostiolis minimis papillatis; ascis linearibus, paraphysatis, octosporis; sporidiis ellipticis continuis, monostichis, hyalinis. 1631

Hab. in Bolivia, ad folia Melastomatum (Pentland).

40. **Læstadia Rhododendri** (De Not.) Sacc. *Sphærella Rhododendri* De Not. Sf. ital. p. 86, t. 96. — Peritheciis epiphyllis, parenchymate innatis, dilute ferrugineis, vertice nigro epidermidem perforante, sparsis, globosis, 200 μ. diam.; ascis elongatis, breve stipitatis, 120-140 ≃ 34, octosporis; sporidiis imbricato-distichis, cylindraceo-oblongis, utrinque rotundatis, continuis, 44-48 ≃ 10-12, intus granulosis, lutescentibus. 1632

Hab. in foliis rufo-maculatis Rhododendri ferruginei in Italia boreali. — An *Anthostomella*, an *Physalospora?*

41. **Læstadia Rouxii** (Mont.). Sacc. *Sphæria Rouxii* Mont. Ann. Sc. nat. 1858, XII, p. 184. *Sphærella Rouxii* Ces. et De Not. Schema Sfer. p. 237. — Peritheciis amphigenis, nigris, epidermide atra- 1633

ta nitida tectis, gregariis v. subconfluentibus, depresso-globosis, poro simplici pertusis, 280–300 μ. diam.; ascis elongatis e basi turgidula sensim attenuatis, breve stipitatis, 85 ≃ 17, octosporis; sporidiis mono-distichis, fusoideo-oblongis, utrinque subacutis v. obtusatis, rectis v. curvulis, continuis, 27 ≃ 8, nubilosis, hyalinis.

Hab. in foliis emortuis Ericæ multifloræ in Gallia. — An *Physalospora?*

42. **Læstadia maculiformis** (Bonord.) Sacc. *Carlia maculiformis* Bo- 1634
nord. Abhandl. p. 152, t. 1, fig. 21 (nec *Sph. maculiformis* Auct.) — Peritheciis minimis atris punctiformibus, epidermide tectis, ostiolo simplici apertis; ascis brevibus clavato-lanceolatis aparaphysatis; sporidiis fusiformibus ventricosis; utrinque obtusiusculis, hyalinis.

Hab. in foliis vivis arborum in Germania. — Forma sporidiorum medio subventricosa facile species dignoscitur.

43. **Læstadia Oxalidis** (Rabh.) Sacc. *Carlia Oxaldis* Rabh. sec. Bo- 1635
nord. Abhandl. p. 152 et Fuck. Symb. 103 (*Sphærella Carlii* Fuck).. — Perithecis nigris, minimis, globosis, epidermide tectis, prominulis; ascis sessilibus, brevibus, lanceolatis et fasciculatim conjunctis, 32–36 ≃ 8; sporidiis fusiformibus, ventricosis, 14 ≃ 4, hyalinis.

Hab. in foliis Oxalidis Acetosellæ vivis in Germania; in foliis Oxalidis corniculatæ Cairo (Thüm.) et Peradeniya, Ceylon (Berk. Ceyl. Fungi n. 1122). In hac forma perithecia basi hyphis paucis ramulosis instructa sunt; asci deorsum crassiores 37 ≃ 10; sporidia oblonga, 10–14 μ. longa, 1–3-guttulata.

Species quoad genus dubiæ

44. **Læstadia? brunnea** (B. et C.) Sacc. *Depazea brunnea* B, et C. 1636
North Amer. fungi n. 974, *Sphærella brunnea* Cooke. — Maculis orbicularibus brunneis; ascis clavatis; sporidiis distichis angustis fusiformibus quadrinucleatis, subinde curvulis.

Hab. in foliis Aceris rubri in Carolina inferiore, Amer. bor. Maculæ atro-brunneæ 6–7 mill. latæ.

46. **Læstadia glaucescens** (Cooke) Sacc. *Sphærella glaucescens* Cooke 1637
Rav. Fungi Grev. VII, p. 54. — Hypophylla; peritheciis semi-immersis, in maculas orbiculares, minimas congestis; ascis clavatis 30 ≃ 10; sporidiis ellipticis 5 ≃ 3.

Hab. in foliis Aceris rubri, Aiken Carolinæ Amer. borealis.

47. **Læstadia epilobiana** Sacc. *Sphærella Epilobii* Fuck. Symb. p. 103, 1638
Dothidea maculæformis Desm. Ann. Sc. nat. 1847, VIII, p. 176,

sec. Fuck. F. rh. 1023. — Epiphylla; peritheciis innatis, prominulis, sparsis v. gregariis minutissimis, nigris, maculæ brunneæ insidentibus; ascis oblongis, sporidia 8, disticha, ovata, simplicia, multiguttulata, hyalina includentibus.

Hab. in pag. sup. foliorum Epilobii montani prope Œstrich Germaniæ. — Sec. Desm. l. c. asci sunt breves subclavati 50 μ. long.; sporidia oblonga obtusa, septata, olivacea 10 μ. longa. An ergo species diversæ? *Læst. Epilobii* (Wallr.) quoque diversa est.

48. **Læstadia Mali** (Fuck.) Sacc. *Ascospora Mali* Fuck. Symb. myc. 1639
p. 95. — Peritheciis sparsis, minutissimis, conicis, perforatis, atris, epidermidem radiatim tumefacientibus, dein erumpentibus; ascis oblongis, stipitatis, curvatis, minutis, sporidia 6, ovata, simplicia, hyalina, minuta includentibus; cirrhis candidis, fasciculatis. — Sec. Fuck. l. c. spermogonium sistit *Asteroma Mali* Desm.

Hab. in pag. sup. foliorum Pyri Mali, rarius prope Œstrich, Germaniæ et in Belgio.

49. **Læstadia comedens** (Pass.) Sacc. *Sphærella comedens* Pass. Hedw. 1640
1878, p. 171. — Peritheciis minimis atris, in maculis aridis subcircularibus v. irregularibus insertis; ascis clavatis, in basim attenuatis, stipitatis, octosporis; sporidiis distichis fusoideis, continuis, hyalinis, triguttulatis (maturis?).

Hab. ad folia viva Ulmi campestris prope Parmam Italiæ. — Adsunt simul *Phomæ* et *Ascochytæ* species.

50. **Læstadia perusta** (B. et Br.) Sacc. *Sph.* (Depazea) *perusta* B. et 1641
Br. Fungi of Ceylon n. 1123. — Orbicularis, limitata, fusca, centro pallida; ascis oblongatis, 75 μ. longis; sporidiis ellipticis 12–13 μ. longis (maturis?).

Hab. in foliis Dioscoreæ tomentosæ, Ceylon.

51. **Læstadia caricicola** (Fuck.) Sacc. *Sphærella caricicola* Fuck. 1642
Symb. mycol. p. 101. — Peritheciis sparsis, tectis, minutissimis, globosis, atris, epidermidem pustulato-infiantibus, ostiolis subtilissime punctiformibus, prominulis; ascis fasciculatis, oblongis, 8sporis, 46 μ. long.; sporidiis ovato-oblongis, 9 μ. long., hyalinis.

Hab. in foliis exsiccatis Caricis ripariæ, Rauenthel Germ., Padova Italiæ.

52. **Læstadia Cicutæ** (Kirchn.) Sacc. *Sphærella Cicutæ* Kirchn. in 1643
Thuem. Fungi austr. n. 964. — Peritheciis gregariis, demum subliberis, multiformibus, depressis, papillatis, atris, ostiolis prominulis; ascis vermiculato-curvatis, fasciculatis, 8sporis, sporidiis ovatis, simplicibus, hyalinis.

Hab. in Bohemia merid. circa lacum «Plöckensteiner See» ad Cicutæ virosæ caules putridos (L. KIRCHNER).

53. **Læstadia œnanthicola** (Fuck.) Sacc. *Sphœrella œnanthicola* Fuck. Symb. mycol. p. 102. — Peritheciis tectis, gregariis, demum subliberis, punctiformibus, depressis, papillatis, atris, ostiolis prominulis; ascis vermiculato-curvatis, fasciculatis, 8sporis; sporidiis ovatis, hyalinis, simplicibus(?). 1644

Hab. in caulibus exsiccatis Phellandrii aquatici prope Œstrich Germaniæ.

54. **Læstadia Epilobii** (Wallr.) Sacc. *Sph. Epilobii* Wallr. Comp. II, p. 771, *Sphœrella Epilobii* (Wallr.) Auersw. M. Eur. Pyr. p. 14, fig. 59. — Peritheciis nigris, epidermidi innatis, depressis, sublentiformibus, sparsis, poro simplici pertusis, 130–140 μ. latis; ascis clavatis breve stipitatis, 8-sporis, 50 ≃ 10; sporidiis subdistichis, elliptico-oblongis, utrinque obtusatis, continuis, 17 ≃ 4–5 subhyalinis. 1645

Hab. in caulibus siccis Epilobii angustifolii, plerumque cum *Gnomonia Epilobii,* in Germania.

55. **Læstadia cocophila** (Cooke) Sacc. *Sphœrella cocophila* Cooke in M. Un. n. 1452 et in Just Bot Yahresb. 1877, p. 186, Grevill. V, 102, tab. 86, fig. 7. — Hypophylla, gregaria; peritheciis minutis, atris, epidermide nigrificata tectis; ascis obclavatis sessilibus; sporidiis distichis minutis, tereti-oblongis, rectis, continuis, 10 μ. longis, hyalinis. 1646

Hab. in foliis Cocos nuciferæ, Demerara in Guyana britannica. — Perithecia hinc inde maculiformi-aggregata, subinde linea nigra circumscripta, quæ vero ad alienum fungum *(Diaporthe?)* spectare mihi videtur.

56. **Læstadia? Vaginæ** (Lasch.) Sacc. *Sphœrella? Vaginæ* Lasch. in Kl. Hb. myc. 663, Fuck. Symb. myc. p. 100. — Peritheciis.....; ascis nondum visis; sporidiis fusiformibus, arcte curvatis, simplicibus, 14 ≃ 3–4, hyalinis. 1647

Hab. in vaginis Phragmitis communis in Germania et Italia.

57. **Læstadia Violæ** (Lib.) Sacc. *Coniosporium Violæ* Lib. Kickx, crypt. Flandr. I, p. 367. — Peritheciis minutis, innatis, dein erumpentibus, globulosis, nigris, in soros suborbiculares aggregatis, quandoque confluentibus, maculas in matrice olivascentes efformantibus; ascis fugacibus; sporidiis ovoideis. 1648

Hab. in foliis languidis Violæ odoratæ in Belgio.

58. **Læstadia Rabenhorstii** (Ces. et De Not.) Sacc. *Sphœrella Raben-* 1649

horstii Ces. et De Not., Schema Sf. it. p. 238, *Pleospora herbarum* var. *Euphrasiæ* Rabh. F. E. n. 258. — Peritheciis *Pleosporæ herbarum:* sporidiis oblongis, continuis, hyalinis.

Hab. in Euphrasia in Germania.

PHOMATOSPORA Sacc. Fungi Ven. Ser. II, p. 306. (Etym. a *Phoma,* quia ejusdem sporidia spermatiis *Phomæ* similia sunt). — Perithecia membranacea, minuta, tecta v. erumpentia, discreta, ostiolo papillato. Asci cylindraceo-filiformes, aparaphysati, sporidia octona, monosticha, phomatoidea, continua, hyalina, 2-guttulata includentes. — Status spermogonicus *Phomam* referens.

1. **Phomatospora Berkeleyi** Sacc. F. Ven. Ser. II, p. 306, F. ital. t. 605, *Sph. phomatospora* B. et Br. Ann. N. H. n. 647, t. 11, fig. 33. — Peritheciis minutis, 140–200 μ. diam., sphæroideis, immersis v. epidermide tectis v. erumpentibus, ostiolo papillulato, punctiformi, nucleo roseolo; ascis cylindrico-filiformibus, basi longiuscule attenuato-stipitatis, 100–115 ≃ $3^1/_3$, p. sporif. 50–60 ≃ 3–$3^1/_2$, 8-sporis, paraphysibus nullis obvallatis; sporidiis recte v. suboblique monostichis, oblongo-ellipsoideis v. subcylindraceis, 6–8 ≃ 2–$2^1/_2$, rectis, utrinque 1-guttulatis, hyalinis. — Spermogonium: peritheciis, ascophoris similibus sed magis superficialibus, spermatia cylindracea, 8–10 ≃ 2, 2-guttulata, hyalina sed coacervata dilutissime lutescentia foventibus. 1650

Hab. in caulibus putrescentibus Solani tuberosi (sp. 7,5–10 μ. long.), Arabis (a. 60 ≃ 3, sp. 6–8 ≃ 2,5–3), Andropogonis (sp. 10 μ. long.), Scirpi lacustris (a. 80–90 ≃ 3,5–4, sp. 7 ≃ 3) Lapparum (sp. 8 ≃ 2–$2^1/_2$), Lathyri sylv. (sp. 6–7 ≃ $2^1/_2$), Galeopsidis versic., in ramulis hornotidis Sambuci nigræ (sp. 7 ≃ 2), Selva, Vittorio, Covolo, Padova, Ital. bor., Britannia, Gallia et Amer. bor. — Var. *macropoda* Sacc. Fungi it. t. 604; peritheciis sphæroideo-oblongis, subacervatis; ascis longius stipitatis 120 ≃ 3, p. sporif. 60 μ. long.; sporidiis 6 ≃ 2,5–3. In ramulis Hippophaës rhamnoidis in Italiâ boreali.

2. **Phomatospora Argentina** Speg. Fungi Arg. Pug. I, pag. 178. — Peritheciis gregariis, minutis, 120–150 μ. diam., lenticulari-globosis, tectis, ostiolo epidermidem perforante acutiusculo donatis, atris, contextu membranaceo, densissime et indistincte parenchymatico-fuligineo; ascis cylindraceis, sursum obtuse rotundatis, deorsum in pedicellum desinentibus, 100–105 ≃ 5, aparaphysatis, 1651

octosporis; sporidiis recte monostichis, elliptico-elongatis, utrinque obtuse rotundatis, 12–13 ≃ 3–4, bi-guttulatis, hyalinis.

Hab. ad caules emortuos putridos Jussienæ longifoliæ in paludosis secus Rio de la Plata, a la Recoleta, Argent., Americæ australis.

3. **Phomatospora therophila** (Desm.) Sacc. *Sph. therophila* Desm. XIX Nat. p. 16, *Leptosphæria therophila* Auersw. Myc. Eur. Pyr. t. 12, fig. 158. — Peritheciis minutissimis, $^1/_8$–$^1/_{10}$ mill. diam., ovoideis nigris, intus fulvis, sparsis v. subgregariis, immersis, macula minuta subnigra tectis, collo brevissimo, ostiolis superficialibus, nigris, nitidis, punctiformibus; ascis tenuibus, cylindricis 75 ≃ 4; sporidiis octonis, ovoideo-ellipsoideis, 7,5 ≃ 3,3, monostichis, hyalinis. 1652

Hab. in culmis exsiccatis Junci articulati in Gallia.

4. **Phomatospora ovalis** (Pass.) Sacc. Fungi Ven. Ser. II, 303, *Sph. ovalis* Pass. Erb. critt. ital. Ser. II, n. 642 et N. G. bot. it. 1872 p. 296. — Peritheciis primo epidermide tectis, dein denudatis, oblongo-ovatis, ostiolo minuto præditis; ascis oblongo-linearibus, membrana tenuissima facile diffluente ægre conspicuis, 8-sporis; sporidiis subuniseriatis, oblongo-ellipticis, continuis, biguttulatis, hyalinis, « 10–12 ≃ 4–4$^1/_2$ ». 1653

Hab. in Italia, Vigheffio presso Parma, in caulibus emortuis Dauci Carotæ, socia *Heterosphæria,* Sept. 1871 (Passerini).

5. **Phomatospora argyrostigma** (Berk.) Sacc. *Sphæria argyrostigma* Berk. Dec. n. 140. — Late dispersa; peritheciis minoribus depresso-globosis, epidermide tectis, astomis; maculis epidermicis punctiformibus nigris centro candidis; ascis octosporis; sporidiis cymbiformibus hyalinis. 1654

Hab. in foliis putrescentibus Yuccæ filamentosæ, Cincinnati, Ohio, Amer. bor. (Lea). — Sporidia fere *Phomæ* sed asci adsunt. In aversa Yuccæ pagina adest *Phoma dispersa.*

5. **Phomatospora Molluginis** (Mont.) Sacc. *Sphæria Molluginis* Mont. Syll. Crypt. n. 849. — Peritheciis innatis, $^1/_3$–$^2/_3$ mill. diam., gregariis aut sparsis, e rotundo oblongis, madidis convexis, siccitate collabentibus, astomis?, epidermide semper tectis, basi filis radiantibus instructis; ascis linearibus 70 ≃ 2,5, 8-(12?)-sporis; sporidiis globosis hyalinis uniserialibus 2 μ. diam. 1655

Hab. in caulibus emortuis Galii Molluginis circa Sedanum, in Ardennis, Galliæ. — Quoad genus haud prorsus certa.

PHYSALOSPORA Niessl Notiz. neue und Kr. Pyr. p. 10 (Etym. *phy-*

sis vesica, quia sporidia vesiculosa). — Perithecia globulosa, tecta, membranacea v. coriaceo-membranacea, atra, ostiolo typice papillato erumpente. Asci paraphysati, tereti-clavati, paraphysati, crasse tunicati, octospori. Sporidia ovoidea v. oblonga continua, hyalina v. subhyalina. — A gen. *Læstadia* paraphysibus, ostiolo etc. differt (ut *Didymella* a *Sphærella*) sed plurimæ species, adhuc imperfecte descriptæ, ancipites manent, hinc in utroque genere quærendæ.

1. **Physalospora alpestris** Niessl Not. Pyr, p. 10. — Peritheciis sparsis 1656
in matrice immutata, tectis, globosis, minutissimis 90–120 μ. d., fuscis, membranaceis, ostiolo punctiformi prominulo, glabris; ascis oblongo clavatis stipite brevi 84–96 ≃ 25–28; sporidis 8, stipatis 2–3-stichis, cuneato-oblongis vel dactyloideis, inæquilateralibus, curvatisve, utrinque rotundatis, continuis, dilute luteo-virescentibus, 22–26 ≃ 7–9; paraphysibus superantibus tenuibus simplicibus.

Hab. in foliis Caricis sempervirentis et C. albæ in Pannonia et Helvetia.

2. **Physalospora Festucæ** (Lib.) Sacc. Mic. I, 27, F. it. t. 600. *Sphæ-* 1657
ria Festucæ Lib. Exs. n. 246. *Sphæria sancta* Rehm et Thüm. Myc. Univ. et in Giorn. bot. ital. 1866, p. 252. *Sphærella Festucæ* Awd. Myc. Eur. 16, fig. 111, Cfr. Sacc. F. V. ser. II, 309 sub *Pleosp. pyrenophoroide* Sacc. — Peritheciis gregariis, epiphyllis, interdum amphigenis, globosis, innatis, papillatis, atris; ascis clavatis, crassis, crasseque tunicatis 90–100 ≃ 16–8, octosporis; sporidiis subrhombeo-ellipticis, 25–30 ≃ 10–12, distichis grosse 1–3-guttatis, hyalinis initio strato mucoso obvolutis, denique (teste Rehm.) fuscidulis; paraphysibus crassis, ramosis perpaucis.

Hab. in foliis Festucæ, Arundinis, Phragmitis, Andropogonis, Holoschæni etc. in Gallia, Germania, Italia.

3. **Physalospora montana** Sacc. Mich. II, p. 378. — Peritheciis la- 1658
xiuscule et seriatim gregariis, globoso-lenticularibus, innatis, denique vix erumpentibus, $^1/_6$ mill. diam., ostiolo brevissimo obtuse conoideo; contextu laxiuscule celluloso fuligineo; ascis oblongo-clavatis, 50–60 ≃ 12–14, breve stipitatis, apice rotundatis, paraphysibus bacillaribus asco longioribus guttulatis obvallatis, octosporis; sporidiis distichis, ovoideo-fusoideis, 15–18 ≃ 6, quandoque inæquilateralibus, nubiloso-guttulatis, hyalinis.

Hab. in foliis exsiccatis Sēsleriæ cœruleæ in M. Generoso, Italia et Helvetia (Penzig).

4. **Physalospora Corni** Sacc. Mich. I, p. 329, F. it. t. 182. *Sphæria* 1659

corniella Cooke in Grev. *Botryosphæria Corni* Sacc. Fungi Ven. Ser. IV, 4 (non *Sphæria Corni* Sow.) — Peritheciis cortice nidulantibus, gregariis epidermide pustulatim tumidula, denique disrupta, velatis, globulosis, $^1/_3$–$^1/_2$ mill., papillatis, nigris; ascis cylindraceo-clavatis, 70–80 ≃ 12, deorsum attenuatis, apice rotundatis, paraphysibus filiformibus guttulatis obvallatis, octosporis; sporidiis oblique monostichis v. distichis, oblongis v. subfusoideis, utrinque obtusiusculis, 18 ≃ 5, curvulis, 1–2-guttatis, hyalinis.

Hab. in ramulis Corni sanguineæ putrescentibus, Selva Ital. bor., Shrewsbury Angliæ. — A *Sph. Corni* Sow. sec. descrip. Cooke et Curr. etc. omnino diversa est.

5. **Physalospora gregaria** Sacc. F. ital. t. 432. Mich. I, 491, 506. — 1660
Peritheciis dense gregariis peridermio tectis, globosis, brevissime papillatis atris, intus candidis; ascis clavatis, rotundatis, crasse tunicatis, breve stipitatis, paraphysatis, octosporis; sporidiis distichis ovoideo-oblongis 30–40 ≃ 6–8, granulosis, guttulatisve hyalinis.

Hab. in ramis corticatis Pruni, Salicis, Alni, Corni, Eriobotryæ, Fici Caricæ, Rosæ etc. in Italia bor., Gallia, Sibiria Asiatica, Amer. austr. — Var. *foliorum;* peritheciis minoribus, innato-protuberantibus, epidermide subvelatis; ascis clavatis, 85–90 ≃ 15; sporidiis distichis, ovato-oblongis, 20 ≃ 7–8, granulosis hyalinis. — In foliis Taxi baccatæ dejectis, Padova, Italia borealis.

6. **Physalospora Wrightii** (B. et C.) Sacc. *Sphæria Wrightii* B. et C. 1661
North Am. Fungi n. 970. — Subcuticularis, cupulari-collapsa; ascis lanceolatis obtusis; sporidiis biseriatis oblongis curvulis 25–32 μ. long., subinde strato angusto hyalino obductis, hyalinis.

Hab. in foliis Statices Limonii, California, in America boreali (C. Wright).

7. **Physalospora rosicola** (Fuck.) Sacc. *Sphæria rosæcola* Fuck. 1662
Symb. myc. p. 114. — Peritheciis gregariis, epidermide nitida, nigrificata tectis, minutis, globosis, atris, nucleo albo, ostiolis prominulis, papillatis, perforatis; ascis fasciculatis, oblongo-ovatis, 8-sporis, 40 × 16; sporidiis obovato-oblongis, simplicibus, hyalinis.

Hab. in ramis siccis Rosæ caninæ in Germania, frequens.

8. **Physalospora pustulata** Sacc. *Botryosphæria pustulata* Sacc. Fun- 1663
gi Ven. Ser. IV, pag. 3, F. it. t. 137. — Peritheciis subsolitariis in cortice nidulantibus et epidermidem infuscatam pustulatim elevantibus, ramulos late et dense ambientibus, globulosis, subdepressis, $^1/_3$ mill. diam., breve conico-papillatis, nucleo albo; contextu

perithecii densiuscule parenchymatico fuligineo; hyphis ramosis anastomosantibus parce septatis, fuligineis inter perithecia undique repentibus; ascis clavatis, deorsum substipitatis, 110–120 ≃ 16–20, crasse tunicatis, pseudoparaphysatis, 8sporis; sporidiis distichis, ovoideo-rhombeis, 26–30 ≃ 13–15, episporio crassiusculo hyalino, dilutissime flavidis, granulosis, initio cymbiformibus hyalinis.

Hab. in ramis ramulisque Aucubæ japonicæ Patavii, Ital. bor., Coryli et Cerasi in Amer. bor. — Fabrica et colore sporidiorum et dispositione peritheciorum *Phys. gregariæ* cognata, etsi ab ea bene distincta.

9. **Physalospora alpina** Speg. in Roum. Rev. Mycol. II, p. 32. t. I, fig. C. Mich. II, p. 159. — Peritheciis sparsis, parenchymate foliorum immersis, globosis, $^1/_3$–$^1/_2$ mill. diam., siccitate quandoque cupulatis, contextu crasse membranaceo, fulvo-fuligineo, ostiolo plus v. minus protuberante obtuso, atro, subcarbonaceo; ascis fusoideis, apice truncato-rotundatis crasseque tunicatis, 110–120 ≃ 20, basi in stipitem brevem et nodulosum abrupte attenuatis, paraphysibus filiformibus, guttulatis, obvallatis, octosporis; sporidiis inordinate distichis, oblongo-ellipsoideis, utrinque acutiuscule rotundatis, 35–40 ≃ 8–9, continuis, granuloso-farctis, hyalinis. 1664

Hab. in foliis dejectis putrescentibus Rhododendri ferruginei, M. Serva (Belluno), Ital. bor., Spegazzini — *Læstadiæ Rhododendri* affinis, sed paraphysum præsentia sporidiis minoribus etc. distinguenda videtur.

10. **Physalospora euganea** Sacc. Mich. I, 244, F. it. t. 601. — Peritheciis dense gregariis, subcutaneis, globoso-depressis, 130–150 micr. diam., pertusis; contextu parenchymatico fuligineo; ascis cylindraceo-clavatis, 80–100 ≃ 17–18, apice tunica integra, rotundatis, brevissime crasse stipitatis, aparaphysatis, 8sporis; sporidiis distichis oblongo-fusoideis, utrinque obtusiusculis, 20–25 ≃ 8, leniter curvulis, initio strato tenui mucoso obductis, intus granulosis, hyalinis. 1665

Hab. in ramulis emortuis Spartii juncei in colle Venda, Euganeorum Ital. bor. (Bizzozero).

11. **Physalospora Euphorbiæ** (P. et Ph.) Sacc. *Sphærella Euphorbiæ* Pl. et Ph. in Grev. VI, 28. — Peritheciis minutis, epidermide tectis, applanatis, gregariis sparsisve; ascis subcylindricis 70 ≃ 10–15, octosporis; sporidiis distichis, ellipticis, utrinque acutis, 15–18 ≃ 6–8, granulosis, hyalinis. 1666

Hab. in caulibus Euphorbiæ amygdaloidis, Diumore Bri-

tanniæ. — Ostiolis brevibus, sporidiis majoribus etc. mox dignoscitur a *Gn. Euphorbiæ* (Fuck.).

12. **Physalospora minutula** Sacc. et Sp. Mich. I, 369. F. ital. t. 354. — 1667
Peritheciis hinc inde gregariis, epidermide velatis, punctiformibus, globoso-lenticularibus, 150–160 micr. diam., ostiolo 20 micr. diam. pertuso, vix papillato; perithecii contextu parenchymatico, atro, coriaceo-membranaceo; ascis cylindraceo-clavatis, 60 ≃ 10–12, breve noduloso-stipitatis, apice tunica integra obtusatis, aparaphysatis, octosporis; sporidiis distichis, ovoideo-navicularibus, 12–16 ≃ 4–6, 1–2-guttatis, hyalinis.

Hab. in caulibus emortuis Euphorbiæ Cyparissiæ, Conegliano, Majo 1877, socia *Phoma cyclospora* Sacc. (forte stat. spermogon. *Physalosporæ*) sic definienda; peritheciis lenticularibus, subcutaneis, distincte et firme parenchymaticis, pertusis; spermatiis globulosis v. quandoque obtuse angulosis 1–3-pluriguttatis, $5^1/_2$–$6^1/_2$ μ. diam., hyalinis, basidiis cylindraceis, 5 ≃ $1^1/_2$, facillime deciduis fultis.

13. **Physalospora Astragali** (Lasch) Sacc. Mich. I. 276, 121 (*Phys.* 1668
Kœhneana F. ital. t. 603. *Sph. Astragali* Lasch Auersw. Myc. Eur. Pyr. tab. 12, f. 160 (non *Sph. Astragali* Curr. Simpl. Sphær. n. 362 quæ *Diaporthis* spec.). — Peritheciis gregariis subcutaneis, tectis dein epidermide fissa semi-erumpentibus, aterrimis, globoso-lenticularibus, $^1/_8$–$^1/_6$ mill. diam., contextu distincte celluloso fuligineo, ostiolo minutissimo papillato; ascis cylindraceis quandoque cylindraceo-fusoideis, 100 ≃ 15–20, subsessilibus, apice, lumine leniter coarctato, obtusatis, paraphysibus filiformibus obvallatis, octosporis; sporidiis monostichis v. subdistichis, rarius transverse positis, ellipsoideis, 14–16 ≃ 8, strato mucoso hyalino diu obvolutis, granulosis, hyalinis.

Hab. in pagina superiore foliorum languidorum Astragali cujusdam prope Fürstenwalde in Marchia Brandenburg (Koehne in herb. Magnus). — Perithecia epidermide leniter nigrificata tecta. Si sporidia dein fuliginea fiant, tunc species ad gen. *Anthostomellam* migraret.

14. **Physalospora megastoma** (Peck) Sacc. *Sph. megastoma* Peck, 1669
Bot. Gaz. 1879. — Peritheciis minutis, numerosis, amphigenis, initio epidermide tectis, dein erumpentibus, nigris; ostiolis amplis circularibus, intus pallidis; ascis subcylindricis; sporidiis monostichis v. inordinatis, oblongo-ellipticis, 10–15 μ. long., intus granulosis, chlorino-flavidis.

Hab. in foliis adhuc vivis Astragali bisulcati, Colorado Amer. bor. (Jones). — Folia viva adit, quæ deinde necantur.

15. **Physalospora fallaciosa** Sacc. Mich. I, 121, Fungi ital. t. 602. — 1670
Peritheciis sparsis gregariisque innato-erumpentibus e globoso lenticularibus 150 micr. diam., aterrimis, breve papillatis, contextu distincte celluloso fuligineo; ascis cylindraceo-clavatis breve crassiuscule stipitatis, 75–85 ≃ 12–15, apice, lumine initio leniter coarctato, obtusis, paraphysibus filiformibus evanidis obvallatis, octosporis; sporidiis distichis vel oblique monostichis, ovato-oblongis, 15–18 ≃ $5^1/_2$–7, rectis curvulisve utrinque obtusiusculis, strato exiguo gelatinoso primitus obvolutis, granulosis, hyalinis.

Hab. in foliis bracteisque languidis Aletridis et Musæ in horto botanico Berolinensi, Germaniæ (P. Magnus).

16. **Physalospora citricola** Penz. Fung. agrum. n. 21. — Peritheciis 1671
laxe gregariis, epidermide velatis, denique subnudis, globoso-depressis, obtusis, ostiolo impresso pertusis, 180–220 μ. latis nigris, contextu parenchymatico fuligineo, solidiusculo; ascis tereti-fusoideis, brevissime stipitatis, sursum attenuatis truncatisque, 47–54 ≃ 10–14, paraphysibus filiformibus asco longioribus obvallatis, octosporis; sporidiis stipate distichis ellipsoideo-oblongis utrinque rotundatis, subinde inæquilateralibus, 14–17 ≃ 6–8, 2-guttatis v. granulosis, hyalinis.

Hab. in partibus arescendo dealbatis foliorum Citri Limonii in frigidariis, Strà, Cattajo presso Padova, Italiæ borealis (Penzig).

17. **Physalospora disrupta** (B. et C.) Sacc. *Sph. disrupta* B. et C. 1672
North Amer. Fungi n. 946. — Peritheciis cuticula tectis, tumentibus, ostiolo punctiformi perforante; ascis crasse obovatis; sporidiis biseriatis ellipticis, hyalinis.

Hab. in caule Smilacis in Carolina infer. Amer. boreali. — Adest simul pycnidium: stylosporis ellipticis fuscis 2-nucleatis.

18. **Physalospora disseminata** Sacc. Mich. II. 137. — Peritheciis hy- 1673
pophyllis dense et late gregariis, initio velatis, lenticularibus, $^1/_{10}$–$^1/_8$ mill. diam., ostiolo impresso pertuso, contextu minute celluloso, fusco; ascis clavatis, breve stipitatis, apice tunica integra rotundatis, 50 ≃ 8, paraphysibus filiformibus obvallatis, octosporis; sporidiis distichis, oblongo-cylindraceis, inæquilateralibus, 10 ≃ 3, hyalinis.

Hab. in foliis Clematidis glaucæ, prope Minussinsk in Sibiria asiatica.

19. **Physalospora Claræ-bonæ** Speg. Dec. Mycol. 88, Mich. II, 159, 1674
Sphæria vaccinicola Lib. Herb. — Peritheciis globoso-lenticula-

ribus, 150–180 micr. diam., parenchymate foliorum immersis, epidermideque minutissime bullulato-umbilicata, mellea tectis; contextu parenchymatico fulvo-fuligineo, ostiolo impresso saturatiore; ascis cylindraceis, 100 ≃ 7–8, paraphysibus obvallatis v. subnaviculariis, utrinque acutiusculis, 14–16 ≃ 5, crasse-1-guttatis, hyalinis.

Hab. in foliis aridis adhuc pendulis Vaccinii Vitis-ideæ in sylva Cansiglio, Ital. bor., Malmedy Galliæ et Germ.

20. **Physalospora pertecta** (Cooke) Sacc. *Sph. pertecta* Cooke Fungi of Texas 143. — Subtecta seriata; peritheciis globosis, atris, demum supra conspicuis, poro pertusis; ascis clavatis sessilibus; spodiis ellipticis, utrinque attenuatis hyalinis, 20–23 ≃ 10. 1675

Hab. in Texas, Galveston Bay, in ramis dejectis (Ravenel).

21. **Physalospora hyalospora** (Ces.) Sacc. *Sphæria hyalospora* Ces. Hedw. 1859, n. 4. tab. II, fig. 11. — Peritheciis solitariis, majusculis depressiusculis, mollibus, papyraceis, fuscis, calvis; paraphysibus numerosis, crassis, rigidiusculis, clavulatis; ascis clavatis, octosporis, 90–100 ≃ 16–24, paraphyses æquantibus; sporidiis hyalinis, ellipsoideis, obtusiusculis, 2-guttatis, 20 ≃ 10–15. 1676

Hab. in foliis Salicum cum *Venturia chlorospora*, in Ital. bor.

22. **Physalospora citrispora** (B. et B.) Sacc. *Sphæria citrispora* B. et C. North Amer. Fungi n. 938. — Epidermide omnino tecta; ascis clavatis; sporidiis hyalinis citriformibus, distichis, 30–32 μ. l. 1677

Hab. in ramis Tiliæ glabræ in montibus Virginiæ Am. bor.

23. **Physalospora Salicis** (Fuck.) Sacc. *Sph. Salicis* Fuck. Symb. myc. p. 115, t. III, fig. 16. — Peritheciis tectis sparsis, atris, obtusis, minute papillatis perforatisque; ascis stipitatis, oblongis 8sporis, 58 ≃ 10; sporidiis distichis, oblongis, vix curvatis, utrinque obtusis, simplicibus, guttulatis, hyalinis, 14 ≃ 2. — Spermogonium *Phomæ* speciem sistit: spermatiis 8 ≃ 4, 3-guttulatis hyalinis. 1678

Hab. in ramis corticatis Salicis fragilis, rarius prope Œstrich Rhenogoviæ.

24. **Physalospora Cupressi** (B. et C.) Sacc. *Sph. Cupressi* B. et C. North Amer. Fungi n. 940. — Peritheciis epidermide tectis prominulis applanatis, ostiolo distincto; ascis clavatis; sporidiis hyalinis clavatis vel breviter fusiformibus. 1679

Hab. in ramis Cupressi thyoidis in Carolina inferiore, America boreali.

25. **Physalospora gelsemiata** (Cooke) Sacc. *Sph. gelsemiata* Cooke, Rav. Fungi in Grev. VI, 145. — Tecta, sparsa vel subgregaria; 1680

peritheciis subglobosis, prominulis; ostiolis papillatis; ascis clavatis; sporidiis breviter lanceolatis, hyalinis, 30–35 ≃ 10–12.

Hab. in ramis Gelsemii, Aiken, Carol. infer. Amer. bor.

26. **Physaloapora Lathyri** (Dur. et Mont.) Sacc. *Sph. Lathyri* Dur. et Mont. Fl. Alg., I, p. 488, Mont. Syll. Crypt. n. 862. — Foliicola, tecta, colliculosa; peritheciis innatis pro ratione amplis, sphæricis, in utraque folii pagina atra prominulis, intus albis, poro vix conspicuo pertusis; ascis e placenta basilari erectis, 80 ≃ 20, initio utrinque acuminatis ventricosis apice truncatis, adultis late clavatis, sporidiis 8 ovato-oblongis, continuis, hyalinis, 10 μ. longis. 1681

Hab. in foliis Lathyri amphicarpi, Mascara (Durieu).

27. **Physalospora hypericina** (B. et C.) Sacc. *Sph. hypericina* B. et C. North Amer. Fungi n. 947. — Stictoidea; peritheciis depressis epidermide cinctis; ascis clavatis; sporidiis cymbiformibus, hyalinis, 25 μ. longis. 1682

Hab. in caulibus Hypericorum in Carolina inf. Amer. bor.

28. **Physalospora phomatoides** (Mont.) Sacc. *Sph. phomatoides* Mont. Syll. Crypt. 784 et Cent. n. 62, in Ann., 2, XIV, p. 328, t. 19, f. 7, sub *Ascospora*. — Epiphylla, gregaria; peritheciis dimidiatis plano-convexis, epidermide tectis, astomis, atro-nitentibus, interdum confluentibus; ascis oblongis vel obovatis, 60–70 ≃ 20 breve stipitatis; sporidiis 8 ellipticis limbo lato pellucido cinctis, 16–18 ≃ 8, hyalinis. 1683

Hab. ad folia delapsa in sylvis ad Oyapock Guyanæ (Leprieur).

29. **Physalospora protuberans** (Fuck.) Sacc. *Sph. protuberans* Fuck. Symb. myc. 109, t. IV, fig. 12. — Peritheciis sparsis, tectis, globosis, atris, majusculis, ostiolis breviter conicis, prominulis, atris; ascis e basi lata breviter stipitata, amplis, ovato-oblongis, antice acuminatis, 8sporis, 80 ≃ 26; sporidiis inordinatis, oblongis, utrinque obtusis, perparum curvatis, simplicibus, hyalinis, 24 ≃ 7. 1684

Hab. in petiolis putridis nervisque foliorum Alni glutinosæ, rarius pr. Œstrich, Rhenogovia.

30. **Physalospora philoprina** (B. et C.) Sacc. *Sphæria philoprina* B. et B. North Am. Fungi n. 917. — Peritheciis nitidis centro e cuticula albis; ascis oblongis brevibus; sporidiis biseriatis cymbiformibus hyalinis. 1685

Hab. in foliis Ilicis in Carolina sup. Amer. bor.

31. **Physalospora minutella** (Peck) Sacc. *Sph.* (caulicolæ) *minutella* Peck, 29 Rep. on the St. Mus. — Peritheciis minutis, subinde applanatis, nigris, parte superiore denique circumscissa, inferiore ma- 1686

trici adhærente; ascis sublanceolatis; sporidiis oblongis, continuis, hyalinis, 7–8 μ. longis.

Hab. in caulibus emortuis herbarum, North Greenbush, America boreali.

32. **Physalospora Œnotheræ** (B. et C.) Sacc. *Sphæria œnotheræ* B. et C. North Am. Fungi n. 952. — Minutissima; ostiolo punctiformi prominulo; ascis clavatis; sporidiis hyalinis breviter fusiformibus utrinque obtusis. 1687

Hab. in caule Œnotheræ sinuatæ in Carolina infer. America boreali. — An *Læstadia?*

33. **Physalospora consociata** (Ell. et H.) Sacc. *Sphæria consociata* Ell. et Harkn. in Bull. Torr. bot. Cl. 1881 May. — Peritheciis depresso-mammiformibus, 370 μ. diam., ostiolo breve papillato, nigro; ascis angustis; sporidiis fusoideis, acutis, 10–13 μ. long., 2–3-nucleatis subhyalinis v. luteolis. 1688

Hab. in foliis Sequojæ giganteæ, California (Harkness). — An *Læstadia?*

34. **Physalospora uvispora** (Cooke) Sacc. *Sphæria uvæspora* Cooke Fungi of Texas 144. — Gregaria, tecta, peritheciis subglobosis, parvulis, brunneis, poro pertusis; ascis clavatis; sporidiis breviter clavatis, simplicibus, hyalinis, 12–15 ≃ 5. 1689

Hab. in pedunculis florum Yuccæ, Houston, Texas, America boreali (Ravenel). — Sporidia (immatura?) pyrenia uvæ simulant. An *Læstadia?*

35. **Physalospora Bidwellii** (Ellis) Sacc. *Sph. Bidwellii.* Ellis Bull. Torrey Bot. Cl. Aug. 1880, p. 90. — Peritheciis minutis globosis epidermide tectis, demum suberumpentibus, apice poro pertusis; ascis clavato-cylindraceis obtusis 67 ≃ 12,5; sporidiis octo, irregulariter ellipticis vel oblongis, continuis, 12–17 ≃ 4,5–5, intus granulosis, paraphysibus nullis. 1690

Hab. in baccis Vitis, socia *Phoma uvicola*, quæ forte ejus spermogonium, Vineland New Jersey, America boreali (Bidwell). — An *Læstadia?*

36. **Physalospora Althææ** (Kirchn.) *Sph. Althææ* Kirchn. in Thuem. F. austr. n. 1265. — Peritheciis gregariis, lentiformibus, convexis, atris; ascis cylindraceis, stipitatis, 100 ≃ 10, 8sporis; sporidiis monostichis, subobliquis, hyalinis, 20 ≃ 8. 1691

Hab. in Bohemia meridion. in horto ducali Krumauensi in Althææ roseæ caulibus emortuis (L. Kirchner).

37. **Physalospora ceanothina** (Peck) Sacc. *Sphæria* (obtectæ) *ceano-* 1692

thina Peck, 29. Rep. on the St. Mus. — Peritheciis minutis sparsis, raro 2–3 aggregatis, levibus, subglobosis; ostiolis epidermidem perforantibus, subinde rugolosis, v. inæqualibus; ascis octosporis; sporidiis stipatis v. distichis, oblongis obtusis, interdum inæquilateralibus, hyalinis, 12–15 μ. longis.

Hab. in ramis Ceanothi americani, Center Amer. bor.

38. **Physalospora Eunotia** (B. et C.) Sacc. *Sphæria Eunotia* B. et C. 1693
North Amer. Fungi n. 939. — Peritheciis peridermio tectis, erumpentibus; ascis clavatis; sporidiis oblongis, utrinque medio tumidis, hyalinis, 20–25 μ. long.

Hab. in caule Hederæ in Carolina Amer. bor. — Sporidia *Eunotiam* feræ æmulantur.

39. **Physalospora Echii** (Kirchn.) Sacc. *Sph. Echii* Kirchn. in Thuem. 1694
F. austr. n. 868. — Peritheciis gregariis, epidermide nitida tectis, minutis, globosis, atris, nucleo albo, ostiolis prominulis, papillatis, perforatis; ascis fasciculatis, oblongo-ovatis, 8sporis, 40 ≃ 15; sporidiis obovato-oblongis, simplicibus, hyalinis.

Hab. in Bohemia merid., Krumau, in caulibus aridis Echii vulgaris (L. Kirchner).

40. **Physalospora Eupatorii** (Kirchn.) Sacc. *Sphæria Eupatorii* Kirchr. 1695
in Thuen. F. austr. n. 958. — Peritheciis sparsis, globosis, atris, nucleo griseo, demum evacuatis; ascis stipitatis, cylindraceis, 80 ≃ 12; sporidiis 8, oblongis, hyalinis.

Hab. in Bohemia merid., circa lacum «Plöckensteiner See» in caulibus putridis Eupatorii cannabini (L. Kirchner).

41. **Physalospora erratica** (C. et E.) Sacc. *Sph.* (Otectæ) *erratica* 1696
C. et E. New Jersey Fungi in Grev. VI, 95, t. 100, fig. 35. — Gregaria, subcongesta; peritheciis globoso-depressis, atris, demum erumpentibus, hinc inde confertis; ascis clavatis; sporidiis biseriatis, ellipticis, simplicibus, hyalinis, 25–26 ≃ 12–13, intus granulosis.

Hab. in ramis Rosæ, Loniceræ, caulibusque Solidaginis, New Jersey in America boreali.

42. **Physalospora palustris** (Mont.) Sacc. *Stigmatea palustris* Mont. 1697
Pl. Cell. Cent. VII, n. 45, pag. 36. — Amphigena; peritheciis conico-depressis atris opacis in macula brunnea congregatis, ore amplo tandem apertis, nucleo niveo; ascis cylindrico-clavatis; deorsum attenuato-stipitatis, 45 ≃ 10 octosporis; sporidiis oblongo-fusoideis, utrinque obtusis, 15 ≃ 4, quadriguttulatis, hyalinis.

Hab. in foliis Elodis palustris (seu Hyperici Elodis) in Gallia (Guepin).

43. **Physalospora Melaleucæ** (Lév.) Sacc. *Sphæria* (epiphylla) *Melaleucæ* Lév. Ann. Scienc. nat. 5, 1846, p, 261. — Peritheciis epiphyllis, amphigenis, subglobosis, glabris, intus extusque nigris, macula pallida insidentibus, ostiolis obsoletis; ascis clavatis, crassis, copiose paraphysatis, octosporis; sporidiis ovoideis v. subglobosis, hyalinis. 1698

Hab. in Manilla ad folia Melaleucæ Leucadendri (herb. Mus. Par.).

44. **Physalospora trochiformis** (Preuss) Sacc. *Sph.* (obtusatæ) *trochiformis* Preuss, F. Hoyersw. n. 293. — Gregaria atra; peritheciis primo subglobosis, obsolete papillatis, tum supra collabascentibus, concavis, trochiformibus, albo-farctis; ascis cylindricis, octosporis; paraphysibus furcatis mixtis; sporidiis globosis, albis, nucleum includentibus. 1699

Hab. ad caules herbarum majorum, Hoyerswerda Germaniæ.

45. **Physalospora atro-splendens** (Preuss) Sacc. *Sph. atro-splendens* Preuss F. Hoyersw. n. 291. — Gregaria minuta, erumpens; peritheciis subglobosis, lævibus, atris, nitidis, submicroscopicis, basi applanatis; ostiolo nudo; ascis ovatis, basi attenuatis; sporidiis albis continuis, ovatis. 1700

Hab. ad caules herbarum, Hoyerswerda Germaniæ.

46. **Physalospora subsolitaria** (Schw.) Sacc. *Sph. subsolitaria* Schw. in Fr. El. II. 86. — Stromate tenuissimo effuso tecto nigro, peritheciis erumpentibus subsolitariis, intus albis, ostiolo prominulo albo. 1701

Hab. in ramis Rhois in Carolina et Pensyvania. — Stroma tantum est nigredo sub epidermide corticem interiorem penetrans. Perithecia geminatim connata aut omnino solitaria, globosa, atra. Asci elongati, suberecti.

47. **Physalospora eriostega** (C. et E.) Sacc. *Sph.* (obtectæ) *eriostega* C. et E. New Jersey Fungi in Grev. VI, p. 14, t. 95, fig. 2. — Gregaria, peritheciis leniter fusco-lanosis demum glabris, tectis, in maculas bullatas congestis; ascis clavatis; sporidiis biseriatis, late lanceolatis, utrinque obtusis, 35 ≃ 12, granuloso-hyalinis. 1702

Hab. in ramis Lauri Sassafras, New Jersey Amer. bor. — Extra ascos adsunt sporidia 2-septata, brunnea (« mihi visa potius stylosporea »). — Var. *glabrata:* peritheciis calvis. In sarmentis Rubi Idæi, ibidem.

48. **Physalospora entaxia** (C. et E.) Sacc. *Sph.* (obtectæ) *entaxia* C. et E. New Jersey Fungi in Grev. VI, p. 14, t. 95, fig. 14. — Pe- 1703

ritheciis seriatis, erumpentibus, globosis, atris, papillatis; ascis clavatis; sporidiis lanceolatis, hyalinis, 30–32 ≃ 12; pycnidiis in consortio perithecia ascophora imitantibus; stylosporis diplodioideis, ellipticis, uniseptatis, brunneis, 22 ≃ 10.

Hab. in ramis Andromedæ, New Jersey Amer. bor.

49. **Physalospora phomopsis** (C. et E.) Sacc. *Sph.* (obtectæ) *phomopsis* C. et E. New Jersey Fungi in Grev. VII, p. 41. — Perithe- 1704
ciis numerosis, minimis, membranaceis, brunneis, subapplanatis, epidermide tectis; ascis clavatis; sporidiis naviculoideis, hyalinis, nucleatis, 12–14 ≃ 6.

Hab. in caulibus Desmodii, New Jersey Amer. bor. — An sporidia tandem 1-septata?

50. **Physalospora phlyctænoides** (B. et C.) Sacc. *Sph. phlyctænoides* 1705
B. et C. North Am. Fungi n. 953. — Irregularis, fusca, deplanata; ascis late lanceolatis brevibus; sporidiis biseriatis cymbæformibus, endochromate utrinque retracto, 12–14 μ. longis.

Hab. in caulibus Dolichi, Alabama Amer. bor, — Maculas format minutas, fuscas, varias in matrice dealbata.

51. **Physalospora crustulata** (Lév.) Sacc. *Sphæria* (obturata) *cru-* 1706
stulata Lév. Ann. Sc. nat. 3, 1845, p. 52. — Peritheciis sparsis globosis, subiculo crustaceo cinerascente semi-immersis, ostiolis papillatis; nucleo albo; ascis cylindraceis, paraphysatis; sporidiis ellipsoideis, continuis, hyalinis.

Hab. ad ramos Xanthoxyli (Bertero).

52. **Physalospora Cassiæ** (Lév.) Sacc. *Sphæria* (epiphylla) *Cassiæ* 1707
Lév. Ann. Scienc. nat. 3, 1845, p. 53. — Innata, epiphylla, sparsa, peritheciis hemisphæricis nigris nitidis, intus albicantibus, ostiolis prominulis conico-depressis; ascis clavatis, paraphysatis, octosporis; sporidiis monostichis, ellipsoideis, continuis, hyalinis.

Hab. in foliis Cassiæ (ubi?).

53. **Physalospora sporadina** (Lév.) Sacc. *Sphæria* (epiphylla) *spora-* 1708
dina Lév. Ann. Scienc. nat. 3, 1845, p. 53. — Epiphylla, peritheciis gregariis, basi applanatis, subglobosis, lævibus, demum cupulatis, crusta nigra, secedente insidentibus; ostiolis minimis papillatis; ascis brevibus, inflatis, paraphysatis; sporidiis elliptico-oblongis, continuis, inordinate dispositis,

Hab. in Insula Mauritii, ad folia Myristicæ aromaticæ (Commerson).

54. **Physalospora depressa** (Berk.) Sacc. *Sphæria* (foliicolæ) *depressa* 1709
Berk. Crypt. antarct. p. 60, t. LXVIII, fig. V. — Gregaria, minor,

atra, peritheciis tectis subglobosis, lævibus collo destitutis, siccitate depressis; ascis teretibus, paraphysatis; sporidiis distichis, lanceolatis, continuis, hyalinis, 2-nucleatis.

Hab. in foliis dejectis Luzulæ crinitæ in insula Campbell. 1710

55. **Physalospora Idæi** (Fuck.) Sacc. *Sphæria Idæi* Fuck. Symb. myc. p. 114, non *Sphæria clypeiformis* de Lacr. in Rabh. Fungi eur. 331. — Peritheciis gregariis, concavo-depressis, epidermidi nigrificatæ innatis, tectis, ostiolis prominulis, minutissimis, papillatis; ascis cylindraceis, stipitatis, 8sporis, 88 ≃ 6; sporidiis monostichis, ovatis, utrinque attenuatis, 4guttulatis, hyalinis, 12 ≃ 4.

Hab. in sarmentis Rubi idæi prope Œstrich, Rhenogovia.

56. **Physalospora fœniculacea** (Mont.) Sacc. *Sphæria fœniculacea* 1711 Mont. Syll. Crypt. n. 841 et Cent. VI, n. 29, Ann., 3, XI, p. 40. — Seriata, maculæformis, cinerea; peritheciis minimis, stromate fusco immersis, tectis, globoso-depressis, siccitate cupulari-collabentibus, ostiolo brevi, vix ullo; ascis oblongo-cylindraceis, 125 ≃ 15, basi hinc gibbosa conjunctis, sporidiis 8 ellipticis, 20 ≃ 10, hyalinis, granulosis.

Gab. in caulibus Anethi Fœniculi apud Montaud-lez-Miramas Galliæ australis (Castagne).

57. **Physalospora viscosa** (C. et E.) Sacc. *Sphæria* (Obtectæ) *viscosa* 1712 C. et E., Grev. V, p. 34, t. 75, fig. 3. — Gregaria; peritheciis tectis, applanatis, nigris; ostiolo erumpente; ascis crasse clavatis; sporidiis biseriatis, naviculoideis, hyalinis, 35 ≃ 10.

Hab. in ramis Azaleæ viscosæ, Clethræ et Aceris, New Jersey, Amer. bor. — Perithecia lenissime prominula, ostiolis erumpentibus.

58. **Physalospora thyoidea** (C. et E.) Sacc. *Sph.* (Immersæ) *thyoidea* 1713 C. et E. New Jersey Fungi in Grev. VI. 14, tab. 96, fig. 19. — Gregaria; peritheciis semi-immersis, atris, collo elongato; ascis clavatis; sporidiis naviculoideis, hyalinis, 35 ≃ 10.

Hab. in ramis Cupressi thyoidis et Juniperi virginianæ, New Jersey Americæ borealis. — Sporidia subinde ellipsoidea et crassiora; an denique septata? Adsunt simul spermogonia et pycnidia.

59. **Physalospora microtheca** (C. et E.) Sacc. *Sphæria microtheca* 1714 C. et E. New Jersey Fungi in Grev. VI, p. 14. — A *Ph. thyoidea*, cui valde affinis, differt tantum peritheciis subnudis (e cortice secesso?).

Hab. in ligno quercino expallente, New Jersey, Amer. bor.

60. **Physalospora Ecastophylli** (Lév.) Sacc. *Sphæria* (epiphylla) *Ecastophylli* Lév. Ann. Scienc. nat. 3, 1845, p. 54. — Epiphylla, sparsa, innata; peritheciis conico-rotundatis. basi applanatis, nigris, nitidis, nucleo nigro; ostiolis prominulis; ascis ovoideis, paraphysatis, subsinuosis; sporidiis globulosis, hyalinis. 1715

Hab. in Porto-Rico, in foliis Pterocarpi Ecastophylli (Bertero).

61. **Physalospora nitens** (Lév.) Sacc. *Sphæria* (conferta) *nitens* Lév. Ann. Scienc. nat. 3, 1845, p. 51. — Innata, epiphylla, maculæformis, effusa, atra, nitida; peritheciis globosis, stromate cinerascente immersis, nucleo albo, ostiolis prominulis albis; ascis clavulatis, octosporis; sporidiis oblongis subvermicularibus, continuis, hyalinis. 1716

Hab. in Peruvia ad folia Psoraleæ ignotæ (Dombey).

62. **Physalospora coccodes** (Lév.) Sacc. *Sphæria* (conferta) *coccodes* Lév. Ann. Scienc. nat. 3, 1845, p. 50. — Innata, epiphylla, subglobosa, nigra, nitida, peritheciis globosis, congestis, intus albis, ostiolis obsoletis; ascis paraphysatis; sporidiis ellipticis, continuis hyalinis, inordinatis. 1717

Hab. in Brasilia, ad folia Leguminosæ ignotæ.

63. **Physalospora subsimplex** (Schw.) Sacc. *Sphæria* (Obturatæ) *subsimplex* Schw. Syn. Amer. bor. n. 1679. — Primum tenerrima, epidermide alba tecta, ostiolis translucentibus, dein epidermide secessa, subdenuduta; peritheciis dense aggregatis, cortici subimmersis, sæpe confluentibus, oblongo-hemisphæricis, depressis, rugosis, atris, papillatis, papilla decidua, tum pertusis; sporidiis (teste Berk.) ellipsoideis, hyalinis, 14–15 μ. long. 1718

Hab. in junioribus ramis Rhois glabræ frigore emortuis, Bethlehem et New York., Amer. bor.

64. **Physalospora Bambusæ** (Rabh.) Sacc. *Sphæria Bambusæ* Rabh. Hedw. 1878, p. 45. — Peritheciis erumpentibus, numerosissimis, sparsis v. plus minus approximatis (passim stromate confluente), rotundatis, oblongis, atris, parum nitentibus, ostiolo umbilicato; ascis elongato-linearibus, angustis, breviter stipitatis, octosporis; paraphysibus filiformibus, crispatis obvallatis; sporidiis (in ascis) monostichis, oblongis, utroque polo obtusis rotundatis, 9–11 $\simeq$ 5, hyalinis. 1719

Hab. in horto botanico, Calcutta Ind. orient., in utraque pagina foliorum Bambusæ spinosæ.

65. **Physalospora Ludwigiæ** (Cooke) Sacc. *Sphæria Ludwigiæ* Cooke Hedw. 1868, p. 39. — Gregaria; peritheciis epidermide nigrificata 1720

tectis elevatis; ascis clavatis; sporidiis ellipticis, vel pyriformibus, continuis, hyalinis, biseriatis, 25 ≃ 10.

Hab. in caulibus Ludwigiæ, in Carolina australi (Ravenel).

66. **Physalospora Callunæ** (De Not.) Sacc. *Sphærella Callunæ* De Not. Sfer. it. p. 88, t. 100. — Peritheciis sparsis, innato-emergentibus, exiguis, punctiformibus, atris, nitidulis e basi applanatis, filamentis aliquot repentibus, fuligineis stipatis, hemisphæricis, vertice obtuso, osculo tornato, simplici, vix prominulo dehiscentibus, cellulis ægre conspicuis, fuscis contextis; ascis e basi breviter tenuata oblongato-teretibus, obtusis, paraphysibus filiformibus stipatis 8-sporis; sporidiis elliptico-oblongis, 15 ≃ 5, hyalinis nucleis binis subpolaribus instructis. 1721

Hab. in ramis emortuis Callunæ vulgaris, Valle Intrasca, Lago Maggiore, in Italia boreali.

67. **Physalospora Laburni** (Bon.) Sacc. *Carlia Laburni* Bon. Abhandl. p. 152, t. I, fig. 23. — Peritheciis globosis, nigris, epidermide tectis, gregariis; ascis clavatis, ventricosis, brevibus; sporidiis fusiformibus, ventricosis, utrinque obtusiusculis granulosis, subhyalinis. 1722

Hab. in caulibus subvivis Cytisi Laburni prope Treviros Germaniæ.

68. **Physalospora Labecula** (Lév.) Sacc. *Sphæria* (conferta) *Labecula* Lév. Ann. Scienc. nat. 3, 1845, p. 51. — Innata, epi-hypophylla, maculiformis, lævis, nigra, nitida; peritheciis prominulis subglobosis, intus nigris, stromate albo immersis, ostiolis obsoletis; ascis paraphysatis, ovato-oblongis, octosporis; sporidiis monostichis, cylindraceis, continuis, hyalinis. 1723

Hab. in Nova Hollandia, ad folia Acaciæ verticillatæ.

69. **Physalospora Miconiæ** (Duby) Sacc. *Sphæria Miconiæ* Duby Crypt. de Bahia p. 3, tab. II, fig. 1. — Superficialis, orbicularis suborbicularisve demum diffracta, prominula, nigra, rugulosa punctata, punctis prominulis, peritheciis globosis subseriatis, astomis, albo-farctis; paraphysibus elongatis, asco subduplo longioribus; ascis clavatis longe stipitatis; sporidiis parvis globosis, monostichis, quaternis v. octonis. 1724

Hab. in foliis Miconiæ calvescentis Brasiliæ, in prov. Bahia (Salzmann). — An hujus loci?

70. **Physalospora inanis** (Schwein.) Sacc. *Sphæria inanis* Schw., in B. et C. Exot. Fungi Schw. p. 291, t. XXV, fig. 13. — Hypophylla, sparsa, tecta; peritheciis globosis, apicibus summis epidermide adnatis, demum cum epidermidis particula centro circumscissis; ascis 1725

tereti-oblongis, subsessilibus; sporidiis distichis, oblongo-linearibus, 25 μ. longis.

Hab. in pag. infer. Aroideæ cujusdam, Surinam. — An potius e genere *Massalongiella?*

71. **Physalospora Œnanthes** (Crouan) Sacc. *Sphæria Œnanthes* Cr. Finist. p. 25. — Peritheciis inter fibras caulis subimmersis, nigris, sphæricis, 1/5 mill. diam., ostiolo apiculato; ascis fusoideis, octosporis; sporidiis navicularibus, 2-guttulatis. 1726

Hab. in caule emortuo Œnanthes crocatæ, Finistére Galliæ.

72. **Physalospora Corallinarum** (Crouan) Sacc. *Sphæria Corallinarum* Crouan Finist. p. 24. — Peritheciis hemisphæricis v. subconicis, nigris, solidiusculis, 1-2 mill. diam., ostiolo nullo; ascis crassis ovoideis vel pyriformibus, octosporis; sporidiis oblongis, hyalinis granulosisque. 1727

Hab. in fronde Corallinæ officinalis et Janiæ corniculatæ, Finistére Galliæ.

73. **Physalospora Obionis** (Crouan) Sacc. *Sphæria Obionis* Crouan Finist. pag. 25. — Peritheciis nigris, sphæricis, 1-2 mill. diam., ostiolo brevi; ascis cylindracies elongatis, octosporis; sporidiis monostichis oblongis, crasse 2-guttutis. 1728

Hab. in caule putri Obionis, Finistére Galliæ.

74. **Physalospora Hepaticarum** (Crouan) Sacc. *Sphæria Hepaticarum* Crouan Finist. p. 25. — Peritheciis hemisphæricis, nigris, 1/5 mill. diam., epidermide pustulata tectis; ascis clavatis, octosporis; sporidiis oblongis, 4-guttulatis. 1729

Hab. in thallo Lunulariæ, Finistére Galliæ.

Species imperfecte cognitæ.

75. **Physalospora Veselskyi** Auersw. Myc. Eur. Pyr. t. 12, fig. 157, *(Leptosphæria).* — Peritheciis .....; ascis clavatis, paraphysatis, brevissime stipitatis, octosporis; sporidiis subdistichis, obovatis, granulosis, hyalinis. — *Hab.*..... 1730

76. **Physalospora nubilosa** Auersw. Myc. Eur. Pyr. tab. 12, fig. 159, *(Leptosphæria).* — Peritheciis .....; ascis crassis, clavatis, subsessilibus, octosporis; sporidiis tristichis, ovato-fusoideis, fuscidulis. — *Hab.*..... 1731

UROSPORA H. Fab. Sphér. Vaucl. p. 75 (Etym. ab *oura,* cauda, ob sporidia caudata). — Perithecia simplicia, tecta. Asci octospori.

Sporidia continua, hyalina, oblongo-lanceolata, in caudam longe attenuata.

1. **Urospora Cocciferæ** H. Fab. Sphér. Vaucl. pag. 75, fig. 1. — Peritheciis sparsis, punctiformibus, minimis, globosis, atris, in cortice nidulantibus et epidermidem pustulatim inflantibus, ostiolo erumpente, papillato; ascis cylindraceo-clavatis, breve et crasse stipitatis, 8-sporis, 50-55 ≃ 6-8; sporidiis distichis, hyalinis, pluriguttatis, oblongo-lanceolatis, antice acuminatis, postice in setam vel caudam hyalinam multo longiorem productis, 10-15 ≃ 3-4 (absque seta). 1732

Hab. ad ramulos emortuos Quercus cocciferæ prope Orange, Vaucluse Galliæ.

TRABUTIA Sacc. et Roum. Rev. Mycol. 1881, p. 27, t. XIV, fig. 2. (Etym. a cl. Doct. L. Trabut, Floræ Algeriensis indagatore). — Stroma phyllogenum, atrum, radioso-asteromatoides, applanatum. Perithecia stromati adnata, discreta protuberantia, ostiolo pertusa. Asci octospori, obsolete paraphysati, facile fluxiles. Sporidia ovoideo-oblonga, continua, subhyalina. Genus habitu *Phyllachoræ* vel *Rhytismatis*, sed characteribus *Hypospilæ* magis affine, ideoque Pyrenomycetibus sphæriaceis genuinis adscribendum.

1. **Trabutia quercina** (Fr. et Rud.) Sacc. et R. *Rhytisma quercinum* Fr. et Rud. in Linnæa (1830), *Asteroma parmelioides* Desm. (1847). *Rhytisma riccioides* Let. Champ. Bull. t. 629, fig. 4 (1831). *Sphæropsis riccioides* Lév. A. S. N. 1848, IX, 257. — Peritheciis hemisphæricis, subcarbonaceis, atronitentibus, ostiolo rotundo minuto pertusis, denique collabascendo umbilicatis v. subplicatis; nunquam vero disco aperta ut in *Rhytismate;* ascis cylindraceo-clavatis, 100-110 ≃ 18, paraphysibus vagis obvallatis, tunica apice integra præditis, breve stipitatis mox resorptis; sporidiis distichis, oblongo-navicularibus utrinque obtusiusculis, 28-30 ≃ 8-10, granulosis e hyalino pallidissime melleis. 1733

Hab. in pag. sup. foliorum Quercus Ilicis in Gallia, Italia, Germania, Algeria, Q. laurifoliæ. Florida Amer. bor. — Var. *Terraciani* Erb. cr. ital. II. n. 646; sporidiis utrinque paulo acutioribus (ascis vero similibus). In foliis Quercus sessilifloræ v. affinis in Italia meridionali.

2. **Trabutia? cayennensis** (DC.) Sacc. *Xyloma cayennense* DC. Mem. Mus. 11, p. 321, t. III, fig. 6. *Sphæria Cayannensis* (DC.) Fr. S. M. II, 438, Linnæa 1830, p. 546. — Innata, suborbicularis, con- 1734

vexula; peritheciis, in macula atra innatis, superne tuberculato-prominulis; ascis elongatis; sporidiis late ellipticis 10 μ. longis.

Hab. in foliis Psidii, Myrtacearum, Fici Roxburghii in Brasilia, Surinam, India orient. — Pustulæ nigræ, 1 lin. latæ, mamillis 2-3 vix prominulis onustæ; folium circa pustulam decoloratum, parte limitata linea nigra. Subinde maculæ magis applanatæ et margine prominulo cinctæ. Ostiola obsoleta. Quoad genus mihi dubia species.

DITOPELLA De Not. Sfer. ital. pag. 42 (Etym. a *ditopa*, epitheton jam specificum speciei primariæ). — Perithecia corticola, tecta, ostiolo suberumpente. Asci subclavati, polyspori, aparaphysati. Sporidia oblonga v. fusoidea, continua, subhyalina.

1. **Ditopella fusispora** De Not. Sfer. ital. t. 48. *Sphæria ditopa* Fr. S. M. II, p. 481 p. p. *Cryptospora suffusa, minor, polyspora* Tul. Carp. II, 145. *Cr.? ditopa* (Fr.) Karst. Myc. Fenn. II. p. 80. — Peritheciis sparsis, peridermio tectis eique soluto adhærentibus, sphæroideis, mox collabentibus, cupuliformibus, glabris, nigris latit. 0,7 mill.; ostiolo in disco minimo, sordide pallido, demum per peridermium elevatum suberumpente, nigro; ascis cylindraceo-clavatis, breviter tenuissimeque pedicellatis, polysporis, 90–115 ≃ 15–18; sporidiis conglobatis, fusoideo-elongatis, plerumque rectis, 4-guttulatis, hyalinis, 16–24 ≃ 2,5–3,5, paraphysibus nullis. 1735

Hab. in ramis corticatis Alni glutinosæ in Suecia, Britannia, Gallia, Belgio, Germania, Fennia, Italia bor. Sporidia, teste Rehmio, in quoque asco 24, subinde simulate (ob plasma divisum) 1-septata.

2. **Ditopella Cryptosphæria** (Fuck.) Sacc. *Sph. Cryptosphæria* Fuck. Symb. p. 110. *Gnomonia polyspora* Auersw. Myc. Eur. Pyr. p. 24, t. 9, f. 124. — Peritheciis sparsis, immersis, sphæroideis, rostro conoideo, emerso, dimidium perithecium longo vel paullo longiore, epidermidem immutatam leviterque inflatam perforantibus, atris, 0,3–0,5 mill. lat.; ascis polysporis, clavatis, breviter acuteque pedicellatis, 100 ≃ 15–17; sporidiis conglobatis, fusoideo-elongatis, rectis vel rectiusculis, simplicibus, minute guttulatis, 15–20 ≃ 2–3. 1736

Hab. in petiolis foliorum Alni glutinosæ putrescentium, Œstrich Germaniæ et in Fennia.

3. **Ditopella farcta** (B. et Br.) Sacc. *Sph. farcta* B. et Br. Ann. N. H. n. 631, t. 10, fig. 15, Cooke Handb. n. 2659. — Tecta, sparsa; peritheciis solitariis, globosis, denique collabentibus, collis bre- 1737

vibus, ostiolo obtuso, denique peridermium perforante; ascis clavatis, apice obtusis, brevissime stipitatis, polysporis; sporidiis tereti-oblongis, utrinque obtusiusculis, 3-4-nucleolatis, hyalinis.

Hab. in ramis putridis U l m i, Batheaston Britanniæ. — Habitu *Cryptosporellæ hypodermiæ* affinis. Sporidia (ex icone) 12 v. plura in quovis asco, hinc diversa a *Sph. farcta* Plowr. Sph. Brit. n. 68, quæ *Diaporthe.*

4. **Ditopella Vizeana** Sacc. et Sp. Mich. II, 248, F. it. t. 205. *Nectria caulina* Cooke Fung. Brit. Ser. II, n. 479. — Peritheciis gregariis, globoso-depressis, $^1/_4$-$^1/_2$ mill. diam., epidermide sæpe cinerascente, dein fissâ, velatis, nigris; ostiolo exiguo obtuso; perithecii contextu distincte parenchymatico, atro-fuligineo; ascis cylindraceo-clavatis, breviuscule stipitatis, 110–115 ≃ 15–18, apice crassiuscule tunicatis, obtuseque rotundatis, aparaphysatis, polysporis; sporidiis (30–50) polystichis, fusoideis, utrinque obtusiusculis, rectis v. leniter inæquilateralibus, 15–18 ≃ $4^1/_2$-$5^1/_2$, pluriguttulatis v. nubilosis e hyalino dilute olivaceis. 1738

Hab. in ramulis B u x i s e m p e r v i r e n t i s emortuis, Colfosco, Ital. bor. (Spegazzini), Forden Britanniæ (Vize).

5. **Ditopella Hosackiæ** (Cooke et Harkn.) Sacc. *Sphærella? Hosackiæ* C. et H. in Grevill. IX, p. 86. — Sparsa, tecta, punctiformis; peritheciis globoso-depressis; ascis clavatis, sessilibus, polysporis; sporidiis circ. 16, ellipsoideis continuis, hyalinis, 6 ≃ 2,5. 1739

Hab. in ramis H o s a c k i æ in California (Harkness).

POLYTRICHIA Sacc. (Etym. *polys*, plures et *thrix* seta, ob perithecia setosa). — Perithecia subtecta, dein erumpentia, globulosa, coriacea, setis tortuosis obsita. Asci clavati, polyspori. Sporidia minuta continua, hyalina. — Genus mihi nondum observatum, fide diagnoseos accuratissimi Montagnei (qui specimina ex locis variis a Lacroix, Mougeot et Wallroth accepit) conditum.

1. **Polytrichia Wallrothii** Sacc. *Sphæria polytricha* Wallr. Comp. 794. Mont. Cell. Cent. VIII, p. 60 (ex specim. Lacroix, Mougeot et Wallroth). — Peritheciis innato-erumpentibus, $^1/_3$ mill. diam., majusculis nigris, vertice convexo epapillato, pilis tortuosis concoloribus undique obsesso prominulis, ovato-subrotundis, hemisphæricis, intus albo-farctis, ceraceis; ascis clavatis maximis, polysporis, 160–200 ≃ 40; sporidiis minutis, continuis, hyalinis. 1740

Hab. ad culmos s e c a l i n o s et t r i t i c e o s putres, in Germania et Gallia. — Setæ septatæ, fuligineæ, 300 μ. longæ. Cl. Tulas-

ne, Fuckel etc. ducunt *Sph. polytrichum* Wall. ad *Pleosporam*, sed ab hoc genere descriptio supra data abhorret.

TRICHOSPHÆRIA Fuck. Symb. myc. p. 144, em. Sacc. Cons. gen. pyr. p. 6. (Etym. a *thrix*, seta, ob perithecia setulosa). — Perthecia globulosa superficialia, sparse v. dense pilosa, quandoque villo insidentia. Asci oblongi v. cylindracei, 8spori. Sporidia continua, ovata seu oblongo-ovata v. subcylindracea, rarissime appendiculata, semper hyalina. — Conidia et spermogonia in nonnullis nota.

1. **Trichosphæria pilosa** (Pers.) Fuck. Symb. myc. p. 145, *Sph. pilosa* Pers. Syn. Fung. p. 73. — Peritheciis sparsis vel confertis, superficialibus, rotundato-ovoideis, læviusculis, ostiolo simplici atris, breviter pilosis, 0,2 mill. latit., vel paullo ultra; ascis cylindraceis, 50–60 ≃ 4–5, octosporis, spurie paraphysatis, brevissime stipitatis; sporidiis monostichis, ellipsoideis, guttulatis, chlorino-hyalinis, 5–8 ≃ 3–4. 1741

   Hab. ad corticem et ligna Betulæ, Coryli, Quercus, Pini, in Suecia. Britannia, Germania, Belgio, Gallia, Fennia, Italia et America boreali.

2. **Trichosphæria tarda** Fuck. Symb. myc. pag. 145. — Peritheciis sparsis, seminis *Papaveris* magnitudine, globosis, undique strigoso-pilosis, olivaceo-fuscis, ostiolis minutissimis; ascis stipitatis, oblongis, 8sporis; sporidiis distichis, elongato-lanceolatis, simplicibus, hyalinis, 4guttulatis. — Spermogonia peritheciis ascophoris similia: spermatiis suballantoideis 8 ≃ 2, 4guttulatis, hyalinis. 1742

   Hab. in foliis putridis Coryli Avellanæ, raro, prope Johannisberg Germaniæ.

3. **Trichosphæria Punctillum** Rehm et Britz. Augsb. Pilzfl. p. 82. — Peritheciis minutissimis, globosis, papillatis, sessilibus in mycelio fusco tenerrimo sparsis; ascis sessilibus oblongis, 60–70 ≃ 9, apice incrassatis truncatisque, paraphysatis, octosporis; sporidiis elliptico-oblongis, 15 ≃ 5, distichis, subacuminatis, intus granulosis, hyalinis. 1743

   Hab. ad lignum pineum putrescens, Augsburg Germaniæ. — Pili peritheciorum longi, simplices, fusci, 3–4 μ. cr.

4. **Trichosphæria superficialis** (Curr.) Sacc., *Sphæria superficialis* Curr. Linn. Trans. XXII, p. 317, tab. 57, fig. 25, Cooke Handb. n. 2567. — Peritheciis subglobosis, minutissimis, pilosis, subiculo villoso insidentibus; ascis cylindricis, breve stipitatis, octosporis; 1744

sporidiis monostichis, ellipticis v. oblongo-ovoideis, rarius leniter curvis, 7,6–10 μ. longis, 2–4-guttulatis, hyalinis.

Hab. in ligno abietino in Britannia.

5. **Trichosphæria erythrella** (Wallr.) Fuck. Symb. p. 105, *Sph. erythrella* Wallr. Fl. crypt. II, n. 3839. — Peritheciis superficialibus minutis sparsis v. confertim gregariis, subglobosis, basi nuda leviter adfixis, nigro-fuscis, extus præter verticem tenuiter papillatum vellere delicato rufo-ferrugineo, dein sordide fusco vestitis, demum calvis, nucleo albo tenui; ascis cylindraceis, stipitatis, sporidia 8, monosticha, ovato-oblonga, hyalina includentibus. — Sec. Fuck. ejus status conidicus sistit *Acrostalagmum cinnabarinum*. 1745

Hab. in caulibus valde putridis Brassicæ oleraceæ in Germania et Belgio raro. — Status conidicus fere ubique.

6. **Trichosphæria cæsia** (Carm. et Curr.) Sacc. *Sph. cæsia* Carm. et Curr. Linn. Trans. XXII, p. 316, tab. 57, fig. 17, Cooke Handb. n. 2563. — Peritheciis albo-pilosis; ascis cylindraceis, apice rotundatis, stipitatis, octosporis; sporidiis oblique monostichis elliptico-ovoideis, interdum inæquilateralibus, minutis, 5 ≃ 2, 1-guttulatis hyalinis. 1746

Hab. in ligno putri in Brittania.

7. **Trichosphæria fissurarum** (B. et C.) Sacc. *Sph. fissurarum* B. et C. North Amer. Fungi n. 921. — Peritheciis parvis, globosis, breviter villosis, collo crassiusculo, sursum attenuato; ascis parvis, sporidiis minutis, oblongis, hyalinis. 1747

Hab. in ligno pineo in Carolina infer. America boreali.

8. **Trichosphæria exosporioides** Fuck. Symb. myc. p. 145 (nec *Sph. exosporioides* Desm. quæ *Venturia*). — Peritheciis minutissimis, superficialibus, aterrimis, globosis, pilis concoloribus-vestitis; ascis oblongis, substipitatis, 8sporis, 28 ≃ 7; sporidiis ellipticis, utrinque appendiculis fasciculatis, minutissimis, simplicibus, 8 ≃ 3, hyalinis. — Spermogonia peritheciis ascophoris similia: spermatiis ellipticis, 10 ≃ 3, hyalinis. 1748

Hab. in foliis putridis Caricis et Luzulæ, prope Œstrich, Rhenogovia.

9. **Trichosphæria nobilis** Sacc. et Speg. Mich .II, 247, F. ital. t. 306. — Peritheciis superficialibus, sparsis gregariisque globulosis, conico-papillatis, nigris, setulis filiformibus, obtusiusculis, rigidulis, continuis, fuligineis sursum pallidioribus undique vestitis; ascis cylindraceis, breviuscule subnoduloso-stipitatis, apice rotundatis, 70–80 ≃ 8–10, aparaphysatis, tetrasporis; sporidiis recte vel oblique mo- 1749

nostichis, ellipsoideis, utrinque obtusis, 2-guttulatis, 14-17 ≃ 8, e hyalino chlorinis.

Hab. in fragmentis ligneis Lauri nobilis vix putrescentibus, Conegliano, Italiæ bor. (Spegazzini). — Inter perithecia adsunt fasciculi hypharum (setulis perithecii similium) e ganglio stromatico (perithecio incipiente?) oriundis, forte statum conidicum sistentes: sed conidia huc usque non vidimus.

10. **Trichosphæria regulina** (B. et Br.) Sacc. *Sph.* (Byssisedæ) *regulina* B. et Br. Fungi of Ceylon n. 1095. — Peritheciis minutissimis ovatis obtusis e mycelio tenui oriundis; ascis clavatis, 75 μ. long.; sporidiis biseriatis oblongis curvatis tenuibus, 20 ≃ 4. 1750

Hab. ad ligna Peradeniya, Ceylon.

11. **Trichosphæria regulinoides** Sacc.? *Sph. regulina* B. et Br., Ces. Myc. Born. p. 21. — Peritheciis minutissimis, ovatis, obtusis ostiolo impresso, insidentibus subiculo intense brunneo ex hyphis dense septatis simplicibus constituto; ascis linearibus, 50 μ. longis, mox diffluentibus; sporidiis curvulis, tenuibus, altero fine crassiori, hyalinis, turbidulis, simplicibus (an guttulatis?) 7-8 ≃ 2½. 1751

Hab. ad lignum denudatum, Sarawak, Borneo (Beccari). — Sporidiis plus dimidio minoribus etc. a *Trich. regulina* differre videtur.

12. **Trichosphæria rhodochlora** (Mont.) Sacc. *Sph. rhodochlora* Mont. Syll. crypt. n. 795 et Ann. Scienc. nat. 2, I, p. 307, t. 12, f. 2. — Villosa; peritheciis globoso-ovoideis villo læte viridi tectis, intus sanguineis, ostiolis primo oblongis roseis demum papillula nigra decidua pertusis; ascis clavatis; sporidiis ellipticis, hyalinis, coarcervatis roseis, simulate (ob plasmatis partitiones?) clathratis. 1752

Hab. in cortice Alni glutinosi emortuæ, ad Rochecardon Lugduni Galliæ. — An novi generis typus? an *Teichosporæ* species?

13. **Trichosphæria subcorticalis** (Peck) Sacc. *Sphæria subcorticalis* Peck, 28 Rep. on the St. Mus. — Peritheciis pro genere majusculis, molliusculis, subinde collabascentibus, nigris, tomento fusco-nigro denso obductis, eodemque effuso insidentibus; ascis.....; sporidiis oblongis, hyalinis, 7-8 μ. longis. 1853

Hab. in cortice interiore relaxato Carpini Americanæ, North Greenbush, Amer. bor. — Ubi perithecia conferta sunt, tomentum subiculum effusum sistit, ubi laxiora, sigillatim ea circumdat. An *Enchnoa?*

14. **Trichosphæria acanthostroma** (Mont.) Sacc. *Sph. acanthostroma* 1754

Mont. Syll. Crypt. n. 792 et Guy., n. 558. — Byssiseda; perithecciis minutissimis globosis gregatim confertis, lævibus, nigris, epapillatis, mox centro depressis, late pertusis, subiculo concolori tenui cinctis; fibris subiculi septatis, in ramos breves aculeiformes divisis; sporidiis ovoideo-cymbiformibus, exiguis, 5-6,5 μ. longis, 2-guttulatis.

Hab. ad cortices et ligna arborum, Cayenna (LEPRIEUR), Ceylon (BERK.), in Acere, Quercu, Myrica in Amer. bor. (RAVENEL).

WALLROTHIELLA Sacc. (Etym. ab ill. *F. G. Wallroth*). — Perithecia superficialia, globulosa, glabra, nigra. Asci teretiusculi, octospori. Sporidia ovoidea vel suboblonga, continua, hyalina. — Est quasi *Rosellinia (Coniomela)* sed hyalospora.

1. **Wallrothiella congregata** (Wallr.) Sacc. *Sph. congregata* Wallr. 1755
Comp. 786, Mont. Pl. Cell. Cent. VIII, p. 61. — Perithecciis minutissimis, confertissimis, cubilibus laxe adhærentibus, subrotundis atris, nitidis, subtilissime rugulosis, vertice depresso tenuiter papillato demum pertusis, nucleo albido tenui farctis; ascis cylindricis, minutis 20 ≃ 2, octosporis; sporidiis globulosis, 2 μ. diam., monostichis, hyalinis.

Hab. ad ligna salicina putredine exesa, Thuringia in Germania.

2. **Wallrothiella Arceuthobii** (Peck) Sacc. *Sph. Arceuthobii* Peck, 17 1756
Rep. p. 111, t. I, fig. 10-14. — Perithecciis minutis, dense cæspitosis, oblongis vel cylindraceis, obtusissimis, nitidis, nigris; ascis subclavatis, fugacibus; sporidiis sparsis, globosis, hyalinis 4 μ. d.

Hab. in Amer. bor. Forestburgh in capsulis Arceuthobii pusilli. — Perithecia subastoma, bombardioidea.

3. **Wallrothiella minima** (Fuck.) Sacc. *Rosellinia minima* Fuck. Symb. 1757
myc. p. 149. — Perithecciis gregariis, minutissimis, globoso-conicis, subtilissime, papiliatis, atris, opacis, parce concolori-setulosis, subglabrisve; ascis in cirrhos, candidos expulsis, cylindraceis, stipitatis, 8sporis, 48 ≃ 4-6; sporidiis oblique monostichis, oblongo-ovatis cylindraceisve, monoplastis, hyalinis, 8 ≃ 3; paraphysibus linearibus seu attenuatis, asci longitudine.

Hab. in ramis decorticatis Betulæ albæ, rarius, prope Mappen Germaniæ.

4. **Wallrothiella macilenta** (Cooke) Sacc. *Cucurbitaria macilenta* 1758
Cooke Grev. VII, 4. — Cæspitulis minimis, erumpentibus; perithecciis atris, papillatis, sub-nitidis, sicco collapsis; ascis cylindra-

ceis; sporidiis uniseriatis, ellipticis, utrinque attenuatis, binucleatis, 15 ≃ 6.

Hab. in ramis Abietis et Libocedri in California Americæ borealis.

5. **Wallrothiella squalidula** (C. et P.) Sacc. *Sphæria* (Denudatæ) *squalidula* C. et Peck. 29 Rep. on the St. Mus. — Peritheciis gregariis globosis, semiimmersis, vertice pertusis, 300 μ. diam., nigris, ascis cylindricis; sporidiis monostichis, ellipticis, continuis, hyalinis, 12–17 μ long. 1759

Hab. in ligno putri Castaneæ, Portville, Amer. bor.

6. **Wallrothiella melanostigma** (C. et E.) Sacc. *Sphæria* (Pertusæ) *melanostigma* C. et E. New Jersey Fungi in Grev. VI, p. 13, t. 95, fig. 16. — Gregaria, minima, atra; peritheciis subglobosis, 150 μ. diam., papillatis, e ligni fibris emergentibus, submembranaceis; ascis cylindraceo-clavatis; sporidiis ellipticis, parvulis, hyalinis, nucleatis, initio 1-2-guttatis, 10 ≃ 8. 1760

Hab. in ligno quercino expallente, New Jersey Amer. bor. 1761

7. **Wallrothiella minutissima** (Crouan) Sacc. *Sphæria minutissima* Crouan Finist. p. 23. — Peritheciis subsphæricis, papillatis, nigris minutissimis, $^1/_{10}$ mill. diam.; ascis cylindricis, octosporis, paraphysatis; sporidiis ovoideis, hyalinis.

Hab. in fimo vaccino vetusto inter muscos et palmellas, Finistére Galliæ.

BOTRYOSPHÆRIA Ces et De Not. Schema Sfer. it. in Comm. I, p. 211, ex parte, Sacc. Mich. I, 42 (nota), *Melanops* Nits. in Fuck. Symb. p. 225 (Etym. *botrys*, racemus, ob perithecia botryoso-aggregata). — Perithecia stromate pulvinato v. discoideo instrata v. semiinfossa, erumpenti-superficialia, globulosa, atra, intus sæpius alba, subcoriacea, ostiolo minuto impresso v. breve papillato. Asci clavati, octospori, paraphysati. Sporidia ovoidea v. suboblonga, continua, granulosa, hyalina. — Cum multas species exoticas de visu non agnoscam, omnes admisi, sed pro certo habeo inter plures discrimina nulla v. nimis levia intercedere.

1. **Botryosphæria Quercuum** (Schw.) Sacc. *Sphæria Quercuum* Schw. Car. n. 125, p. 40, *Melogramma Quercuum* (Schw.) Berk., *Melanops Quercuum* (Schw.) Rehm., *Sph. fuliginosa* M. et N. nec Pers. Syn. quæ *Cenangium fulig.* immaturum videtur. — Subelliptica, planiuscula, fusca, nigra; peritheciis subglobosis albofarctis, connatis, papillis prominulis; ascis clavatis, crassis, 105 ≃ 27, sub- 1762

octosporis, paraphysatis; sporidiis obtuse ellipticis, inæquilateris, continuis, bi-guttatis, 33 ≃ 12.

Hab. in cortice Quercus in Carolina, New York, New Jersey etc. in Amer. boreali. — Gregaria, minuta, lineam circiter longa, difformis, elliptica v. lanceolata, ostiolis prominulis rugulosa, opaca, tota atra. Perithecia stromate tenui insident, sed nullo tecta v. cincta, demum evacuata intus atra. — Cl. Ellis (Proc. Nat. Sc. Phil. 1879, p. 66), ad hanc speciem permultas ducit quæ fructificatione revera satis inter se conveniunt sed vegetatione nimis differunt ut tute conjungi possint.

2. **Botryosphæria Bérengeriana** De Not. Sfer. ital. 82, fig. 90. Sacc. 1763
Myc. Ven. Spec. p. 116, t. XI, f. 45. — Stromatibus erumpentibus superficialibus, pulvinatis angulosis, v. circulari-discoideis; peritheciis stromati semiimmersis, globulosis, obtusiusculis v. acutiusculis, nigris, intus albis; contextu atro-fusco; ascis elongato-clavatis, basi attenuatis, 70-80 ≃ 18, paraphysibus filiformibus densis obvallatis, 8sporis; sporidiis primo sphæroideis, dein ovoideo-fusiformibus, 20-25 ≃ 10-12, subdistichis, hyalinis, nucleatis. — *Dothiorella Berengeriana* Sacc. sistit pycnidium.

Hab. in ramis corticatis Magnoliæ grandifloræ, Frangulæ, Deutziæ scabræ, Menispermi canadensis, Rhois radicantis, Tiliæ europææ, Ailanthi, Quercus sessiliflorae, Rosæ centifoliæ, Iuglandis regiæ, Sophoræ japonicæ, Mori albæ, Æsculi Hippocastani, Populi, Polygalæ, Pruni, Aceris, Platani etc. in Gallia, Germania, Lusitania, Amer. austr. — **B. acutior* Sacc. Fungi ital. t. 431. Peritheciis liberis, subaggregatis, ostiolo acuto; cetera typi. In ramis Philadelphi, Selva, Ital. bor. — **B. melanommoides* Sacc. Fungi ital. t. 433. Peritheciis liberis, gregariis, ostiolo acutiusculo; cetera typi. In ligno nudo populino, Vittorio, Ital. bor.

3. **Botryosphæria Arctostaphyli** (Plowr.) Calif. Sphær. in Grev. VII, 1764
p. 73. — Peritheciis superficialibus, inæqualibus, varia magnitudine subglobosis, depressis, collabascentibus; ostiolis obsoletis; ascis clavato-pyriformibus 70 ≃ 15-20; sporidiis continuis, ovoideis, subinde curvulis, 15-18 ≃ 4-5, hyalinis. — Spermogonia phomatoidea: spermatiis ovoideis, hyalinis 3-4 ≃ 1.

Hab. in ligno Arctostaphyli glauci, California Amer. bor. — Accedit ad var. *melenommoidem B. Bérengerianæ.*

4. **Botryosphæria Juglandis** (Mont.) Sacc. *Dothidea Juglandis* Mont. 1765
Pl. cellul. Cent. VIII, p. 126 (1860), *Botr. juglandina* De Not.

Sfer. ital. p. 82, t. 89. — Erumpens; stromatibus subcutaneis rugosis, subrotundis, confluentibus extus intusque atris; peritheciis immersis, vel semiimmersis oblongis, ostiolis conicis, intus niveis; ascis cylindrico-clavatis, octosporis, 150 μ. longis, paraphysatis; sporidiis oblongis vel subcymbiformibus, continuis, medio subventricosis, 25 ≃ 10, granulosis, hyalinis (sec. icon. De Not. utrinque obtusis).

Hab. in ramis corticatis Juglandis regiæ in Italia et Gallia. — Species Notarisiana vix differt a Montagneana peritheciis paulo magis prominentibus.

5. **Botryosphæria Cerasi** (C. et Ell.) Sacc. *Dothidea Cerasi* C. et E. New Jers. Fungi in Grev. V, p. 34, t. 75, fig. 2. — Stromatibus gregariis, partim erumpentibus, elongatis, peridermio cinctis, atris; peritheciis papillatis; ascis clavatis, breve stipitatis; sporidiis ellipticis, hyalinis, 25 ≃ 12–14. 1766

Hab. in ramis Pruni Cerasi, New Jersey, Amer. bor.

6. **Botryosphæria advena** Ces et De Not. Schema Sf. p. 212 Sacc. F. it. t. 434. *Dothidea advena* Ces. Erb. critt. ital. ser. I, n. 495. *D. melanops* Tul. Carp. II. 73. *Melanops Tulasnei* Fuck. Symb. 225. — Stromatibus innato-erumpentibus, corticolis, 1–2 mill. diam., depresso-pulvinatis nigris, superficie vix tuberculosis; albo-farctis, $^1/_4$ mill. diam., ostiolis obtusis; ascis magnis, clavatis, 150 ≃ 25, apice lumine leniter coarctato, breve crasse stipitatis, paraphysibus filiformibus obvallatis, octosporis, sporidiis distichis, oblongo-rhombeis, 40–44 ≃ 15, guttulatis, nubilosisque hyalinis; stylosporis in peritheciis distinctis fusoideo-elongatis, 45–50 ≃ 12, granulosis, hyalinis. 1767

Hab. in ramis corticatis quercinis in Gallia, Britannia, Germania et Italia boreali.

7. **Botryosphæria aterrima** (Fuck.) Sacc. *Melanops aterrima* Fuck. Symb. myc. p. 225. — Stromatibus plerumque in corticis vetusti rimis nidulantibus, erumpentibus, aterrimis, 1–4 lineas latis, orbicularibus elongatisve, planis concavisque, subrepandis, corrugato-callosis, intus concoloribus, duris, epidermidis laciniis circumdatis; loculis macrostylosporiferis plane inordinate immersis, globosis oblongisve, verticaliter dispositis, nucleo albo; macrostylosporis in cirrhis candidis, longis expulsis, oblique fusiformibus, monoplastis, hyalinis, in sterigmatibus ortis, 48 ≃ 8; asci nondum visi. 1768

Hab. in rimis corticis annosi Ulmi campestris pr. Œstrich

Rhenogoviæ. — Peraffinis *B. advenæ*, secund. Fuck., sed tantum pycnidica, ergo dubia.

8. **Botryosphæria Cratægi** (Schw.) Sacc. *Sph. Cratægi* Schw. Syn. Am. bor. n. 1445. — Cæspitulis plerumque ellipticis, prorumpentibus, nigris, aut fuscescentibus, laxe nempe ad dimidiam partem involutis tomento furfuraceo-fusco; peritheciis majusculis, paucis, difformibus, semiliberis, demum pertusis (an primum papillatis?) intus albofarctis, demum evacuatis. 1769

Hab. in variis speciebus Cratægi, Bethlehem, Amer. bor. — Horizontaliter secto cæspitulo, perithecia subcircinnatim disposita, in ipsa massa corticali nidulantia conspiciuntur. Sec. Ellis fructificatio Botryosphæriæ.

9. **Botryosphæria pyriospora** (Ellis) Sacc. *Sphæria pyriospora* Ellis Bull. Torr. Cl. 1874, p. 46. — Peritheciis cortice interiore nidulantibus sparsis v. confluentibus, subinde seriate dispositis, peridermium longitudinaliter perforantibus, initio albo-farctis; ostiolis leniter prominulis, minutis; ascis turgidis cylindricis; sporidiis oblongo-pyriformibus, 30 μ. long., stipatis. 1770

Hab. in ramis Chionanthi virginicæ, Newfield, New Jersey, in America boreali.

10. **Botryosphæria ambigua** (Schw). Sacc. *Sph.* (confluent.) *ambigua* Schw. Syn. Am. bor. n. 1442. *Melogramma ambiguum* (Schw.) Berk. Grev. V, 34, t. 75, f. 5. — Prorumpens; cæspitulis subrotundis nigris, satis elevatis; peritheciis non ostiolatis, denique pertusis, subirregularibus, oblongis, imo sub flexuosis et globosis, paucis tantum confluentibus; extus quamquam non glabris, quasi nitentibus, intus albofarctis; ascis tereti-clavatis, breve stipitatis, octosporis; sporidiis subdistichis oblongo-subrhombeis, 32–37 ≃ 12, hyalinis. 1771

Hab. in sarmentis Rhois radicantis, R. copallinæ, Carolina, New Jersey, Florida et Pensylvania, Amer. bor.

11. **Botryosphæria Wisteriæ** (Rehm) Sacc. *Thuemenia Wisteriæ* Rehm Myc. E. n. 971. *Melogramma Wisteriæ* (Rehm) Cooke. — Peritheciis aggregatis, minimis, ex matrice nigerrima oriundis, dein elevatis, conoideo-subpapillatis, apice vix pertusis, nigerrimis, corticem, in plagas hysteriformes plerumque verticaliter diffindentibus itaque lirellas aterrimas, peritheciis mamillosas præbentibus; ascis clavatis, longe stipitatis, crassis, vertice præsertim incrassatis, 150 ≃ 16–18, octosporis, parce ramoso-paraphysatis; sporidiis distichis, obtuse rhomboideis, uni-, tri-plurinucleatis, unicellularibus, 18–21 ≃ 8. 1772

Hab. in ramulis emortuis Wisteriæ sinensis, Aiken Carolina austr. Amer. bor. (H. W. Ravenal).

12. **Botryosphæria Delilei** (Dur. et Mont.) Sacc. *Dothidea Delilei.* Dur. et Mont. Fl. Alg. p. 546. Syll. Crypt. n. 771. — Subcutanea, minuta, sparsa, aut lineari-seriata aggregataque, cuticula erosa arcte cincta, ostiolis tenuissimis granulosa, cellulis albo-farctis; ascis clavatis 70–100 μ. long., sporidiis 20 ≃ 10, cymbiformi-ventricosis. 1773

Hab. ad ramos salicinos, Monspelii Galliæ (Delile); in ramis Ricini apud Alger (Durieu).

13. **Botryosphæria Dothidea** (Moug. et Fr.) Ces. et De Not. Schema Sfer. p. 212 *Sph. Dothidea* Moug. in Fr. S. M. II. 423. *Dothidea Rosæ* Fr. S. V. S. p. 386. — Subrotunda, erumpenti-innata, stromate pallide fusco, peritheciis globosis subimmersis, albofarctis; ascis clavatis, crasse stipitatis, apice rotundatis, octosporis; sporidiis subdistichis, amygdaloideis, hyalinis v. pallide flavis, 17–20 ≃ 8–9, intus granulosis. 1774

Hab. in ramis Fraxini et Rosæ in Britannia, Germania, Belgio, Gallia, Italia. — Sub cortice tenui observantur tumores orbiculares, 2–3 lin. lat., epidermide in rimas flexuosas dehiscente tecti, sub qua latet stroma fusco-atrum, tuberculo corticali subprominente incumbens. Perithecia primo immersa, cellulas albas referunt; adulta procul dubio emersa.

14. **Botryosphæria Persimon** (Schw.) Sacc. *Sphæria* (confluentes) *Persimon* Schw. Syn. Am. bor. n. 1444. *Dothidea parsimons* Fr. Elench. II. 122. — Cæspitulis gregarie confluentibus, varie flexuosis, planiusculis, nigris, ex epidermide elevata prorumpentibus; peritheciis convexis, semiprominulis, papillatis, intus albo-farctis, demum evacuatis. 1775

Hab. passim in cortice Diospyri virginianæ (vulgo *Persimon*) Salem, Amer. bor. — Differt a *B. Quercuum*, cui affinis, peritheciis valde prominulis et ostiolo manifestiori conico-papillato, nec non apice peritheciorum subtruncato.

15. **Botryosphæria venenata** (C. et Ell.) Sacc. *Dothidea venenata* C. et E. New Jersey Fungi in Grev. V. 95. — Erumpens; pustulis parvulis, gregariis, convexo-planis, atris; epidermide fissa cinctis; ascis clavatis, stipitatis; sporidiis amygdaloideis, hyalinis, 45 ≃ 12–15; microstylosporis ovalibus, 8 μ. long.; macrostylosporis ellipticis, brunneis, 30 ≃ 10. 1776

Hab. in ramis Rhois venenatæ, New Jersey Amer. bor. — Affinis *Botr. ambiguæ*, sed pustulæ multo tenuiores.

16. **Botryosphæria syconophila** (De Not.) Ces. et De Not. Schema p. 1777
212. *Sphæria syconophila* Micr. ital. D. VI, p. 100, fig. V. *Dothidea syconophila* Dur. et Mont. Alg. 545. — Acervulis erumpentibus, atris, 1–2 mill. lat., parum prominulis, discoideis v. oblongis; peritheciis minutissimis, numerosis subastomis, atris, vertice sæpe acutis, nucleo albo, sæpius biseriatis; ascis clavatis, deorsum attenuatis, sæpe torosis, paraphysatis, octosporis, 140–145 ≃ 20–25; sporidiis ovoideis intus guttulatis v. grumosis, pallidis, 25 ≃ 8–10.

Hab. in cortice emortuo Fici Caricæ prope Genuam (Italia) et in Algeria.

17. **Botryosphæria Meliæ** (Schw.) Sacc. *Sphæria* (confluent.) *Meliæ* 1778
Schw. Syn. Am. bor. n. 1443, Fr. El. II, 86. *Melogramma Meliæ* (Schw.) Berk. in Grev. — Satis polymorpha; junior ex epidermide prorumpens et ab ea cincta, cæspitulum sclerotioideum subrotundum, griseo-fuscum sistente; peritheciis in superficie vix prominentibus, intus albo-farctis; provectiori ætate cæspitulis elongatim et seriatim confluentibus, peritheciis fere omnino liberatis, pluribus tamen in unum connatis, apice applanato, ceterum rugosis, difformibus vix albofarctis; ostiolis indistinctis hysteriimorphis: fructificatione (teste Ellis) Botryosphæriæ.

Hab. vulgatissima in ramulis Meliæ Azedarach, Carolina, America boreali.

18. **Botryosphæria Hibisci** (Schw.) Sacc. *Sph.* (confluentes) *Hibisci* 1779
Schw. Syn. Am. bor. n. 1444. *Melogramma Hibisci* (Schw.) Berk. in Grev. — Cæspitulis elongatis confluentibus, sæpe varie flexuosis, ex epidermide prorumpentibus, epidermide substellatim fissa, circum circa erecta, sed non cæspitulum denudante; superficie cæspituli applanata; peritheciis nigris, pulvere parco fusco-atro adspersis, papillatis, ovatis intus albo-farctis, prominentibus.

Hab. rarius in truncis emortuis Hibisci rosei, Salem, Amer. bor. — Fibræ corticales quibus adhærent cæspituli cum ligno nigrescunt. Fructificatio *Botryosphæriæ*, teste Ellis.

19. **Botryosphæria præstans** (Lév.) Sacc. *Sphæria* (cæspitosa) *præ-* 1780
stans Lév. Ann. Scienc. nat. 5, 1846, p. 259. — Stromate corticali effuso nigro, peritheciis erumpentibus, prominentibus, ovatis, rugulosis, atris; ostiolis conicis pertusis; ascis magnis clavatis, paraphysatis, octosporis; sporidiis ovoideis continuis, hyalinis.

Hab. in Insula Galliæ ad cortices (A. Du Petit-Thouars).

20. **Botryosphæria sorosia** (Lév.) Sacc. *Sphæria* (cæspitosa) *sorosia* 1781
Lév. Ann. Scienc. nat, 3, 1845, p. 49. — Erumpens; peritheciis

peripheriçis, globosis, nigris, intus albis, stromate proprio nigro carbonaceo suffultis, ostiolis pertusis punctiformibus, nucleo albo; ascis paraphysatis, 8sporis; sporidiis elliptico-oblongis, continuis, hyalinis.

Hab. ad caules Ricini.... ubi? (Gaudichaud).

21. **Botryosphæria lanaris** (Welw. et Curr.) Sacc., *Sphæria lanaris* Welw. et Curr. Fungi Angol. p. 283. — Peritheciis conicis, vel subglobosis, sub epidermide nigrificata in acervos vel tubercula irregulariter stipatis, ostiolis minutis prominentibus; stromate fusco, lanuginoso e folii substantia formato; sporidiis 1-2 seriatis, pallidis, ellipticis vel subpyriformibus, interdum 1-2 nucleatis, 15-18 μ. longis. 1782

Hab. ad folia variarum specierum Fici, Golungo alto, Angola.

22. **Botryosphæria catervaria** (B. et C.) Sacc. *Diatrype catervaria* Berk. et C. in N. Pac. expl. p. 128, n. 156. — Stromatibus parvis in maculas aggregatis, papilla centrali notatis, quandoque confluentibus; ascis brevibus; sporidiis globosis. 1783

Hab. in foliis Fici, Hong-Kong, Ceylon.

23. **Botryosphæria euomphala** (B. et C.) Sacc. *Sphæria euomphala* B. et C. North Am. Fungi n. 904. — Peritheciis cupularibus, congestis; ascis clavatis; sporidiis hyalinis, subellipticis, distichis. 1784

Hab. in ramis dejectis in udis Carolinæ inferiore Americæ borealis (Ravenel).

24. **Botryosphæria diplodioides** (Dur. et Mont.) Sacc. *Sph. diplodioides* D. et M. Fl. Alg. I. p. 480. Syll. crypt. p. 230, n. 810. — Innata, atra; stromate subepidermide effuso, atro-fusco; peritheciis globoso-depressis aut ovoideis, sparsis vel aggregato-confluentibus, epidermide rupta et adhærente cinctis, vix prominulis, albo-farctis, poro ostiolato albo instructis, tandem circumscissis, cupulas atro-nitentes relinquentibus; ascis magnis clavatis, 90 ≃ 35; sporidiis 8, cymbiformibus, simplicibus, gibbis, 40 ≃ 10, granulosis, hyalinis. 1785

Hab. in cortice Quercus cocciferæ, La Calle (Durieu).

25. **Botryosphæria rhizogena** (Berk.) Sacc. *Sphæria* (confluentes) *rhizogena* Berk. Dec. n. 99. *Melogramma rhizogenum* Berk. North Am. Fungi in Grev. — Suborbicularis, atro-fusca; stromate pallido; peritheciis globosis, primum croceo-pruinosis, demum supra atro-fuscis, subtus pallido-fuscis, papilla subtili abrupta quandoque depressa; intus pallido-fuscis; ascis cylindraceis; sporidiis ellipsoideis. 1786

Hab. in radicibus Gleditschiæ Triacanthi, Ohio et Carolina superiore Americæ borealis.

26. **Botryosphæria Vitis** (Schulz.) Sacc. *Gibbera Vitis* Schulz., Thuem. Pitze d. Welist. p. 114. — Peritheciis nigris, globosis, $^1/_8$–$^1/_6$ unc. latis, in stromate obsoleto sessilibus, denseque confertis, aculeatis, aculeis brevissimis, crassis, demum deciduis, vertice obtusissimo, rotundato, nucleo albo-griseo; ascis clavatis, 8-sporis, basalibus; sporidiis ovatis, 26–27 ≃ 10–13, hyalinis vel dilutissime coloratis; paraphysibus articulatis, concretis. 1787

Hab. in ramis emortuis Vitis viniferæ in Slavonia (Schulzer). — A typo *Botryosphæriæ* differt peritheciis aculeolatis.

27. **Botryosphæria mascarensis** (Mont.) Sacc. *Sph. mascarensis* Mont. Cent. II, n. 94, Ann., 2, XVI, p. 272, Syll. Crypt. n. 806. — Erumpens, subrotunda, plana; peritheciis sphæricis, in crustam colliculosam, stromate corticali junctis, intus albis, ostiolis prominulis; ascis amplis, clavatis, 200 ≃ 40, octosporis; sporidiis, 50 ≃ 20, ovoideo-oblongis altero fine mucronatis granulosis. 1788

Hab. ad cortices arborum, insula Mascarena (Balbis).

28. **Botryosphæria horizontalis** (B. et C.) Sacc. *Melogramma horizontalis* B. et C. North Am. Fungi n. 859. — Transversim erumpens; peritheciis subtiliter pulverulentis; ascis clavatis amplis; sporidiis fusiformibus, hyalinis. 1789

Hab. in caule Gossypii in Carolina inferiore Americæ borealis (Ravenel).

Minus certæ.

29. **Botryosphæria Trames** (B. et C.) Sacc. *Sph. Trames* B. et C. North Amer. Fungi n. 908. — Peritheciis seriatis, globosis, subtiliter tomentosis; ascis clavatis; sporidiis cymbæformibus, hyalinis. 1790

Hab. in ramis Aceris in Carolina inf. Amer. bor. — Sporidia illis *Botr. Quercuum* similia.

30. **Botryosphæria graphidea** (B. et Rav.) Sacc. *Melogramma graphideum* B. et Rav. North Amer. Fungi n. 860. — Brevis, graphidea, cortice marginata; sporidiis breviter fusiformibus, hyalinis, 20 μ. long. 1791

Hab. in ramis corticatis Myricæ ceriferæ in Carolina Americæ borealis.

31. **Botryosphæria Gleditschiæ** (Schw.) Sacc. *Sph. Gleditschiæ* Schw. Carol. n. 31. Fr. S. M. II. 421 *Melogramma Gleditschiæ* (Schw.) Berk. in Grev. — Difformis, atra, stromate spadiceo, peritheciis conicis, connatis, farctis, atris, astomis. 1792

Hab. in cortice Gledischiæ in Carolina Amer. bor. — Cæ-

spites sparsi, 2 lin. longi et infra, sparsim erumpentes. Stroma videtur corticale. Perithecia subdena.

32. **Botryosphæria? escharoides** (Fr.) Sacc. *Sph. escharoides* Fr. El. II. 84. — Emersa, subsuperficialis, convexa, tuberculoso-rugosa, opaca, atra, peritheciis minimis, nigrofarctis, ostiolis prominulis. 1793

Hab. ad cortices Juglandis in Gallia circa Angers (Guepin). — Variabilis. Tubercula tota e peritheciis connatis composita, nunc orbicularia, planiuscula, nunc elongata seriata, magis irregularia, 1–3 lin. longa. Perithecia exigua, connata, globosa, intus nucleo atro, cingulo albo cincto; adsunt vero simul alia dispersa solitaria.

33. **Botryosphæria polita** (Fr.) Sacc. *Sph. polita* Fr. S. M. II. 426. Stromate late effuso latente nigro; peritheciis cæspitoso-erumpentibus subconnatis nitidis astomis. 1794

Hab. in caulibus emortuis Heraclei Sphondylii, Dresden Germaniæ (Schubert). — Stroma tenue, effusum, cortice interiori innatum et cum hoc a caule deciduum, tenerrima epidermide tectum. Perithecia seriata, primo immersa, dein cæspitose erumpentia, conglomerata, lævia, prominentia, intus albido-cinerascentia.

34. **Botryosphæria chnaumatica** (Wallr.) Sacc. *Sphæria chnaumatica* Wall. Fl. Crypt. n. 4037. — Peritheciis rugulosis nigris minutis, confertissime conglomeratis, intus albidis, stroma carnosum viridiatrum carnosum, hypophlœodes obliterantibus grumulosque exiguos ovato-subrotundos planiusculos acinosos, epidermidem scissum reclinantes mentientibus. 1795

Hab. ad corticem Populi tremulæ languidum, in Thuringia Germaniæ.

35. **Botryosphæria Calycanthi** (Schw.) Sacc. *Sph. Calycanthi* Schw. Syn. Carol. n. 126. *Melogramma Calycanthi* (Schw.) Berk. in Grev. — Subovata, prominens, atra, peritheciis confluentibus, depressis, lævibus, albo-farctis, subpapillatis. 1796

Hab. in ramis emortuis Calycanthi in Carolina Amer. bor. — Cæspites minuti, lineam lati, parum prominentes, sparsim erumpentes, stromate byssoide. Perithecia minuta, opaca, parum difformia, circiter 12, alia astoma, alia papillata.

36. **Botryosphæria Castaneæ** (Schw.) Sacc. *Sph. Castaneæ* Schw. in Fr. S. M. II. 420. — Ovata, planiuscula, atra, peritheciis confluentibus truncatis, rugulosis, papillatis. 1797

Hab. in cortice Castanearum in Carolina Amer. bor. — Cæspites difformes, ovati, 3 lin. longi, confertim nascentes, pro more erumpentes, epidermide cincti. Stroma tuberculosum, fusco-ni-

grum, subelevatum. Perithecia globoso-depressa, pauca v. numerosa 30–100, manifeste papillata, papilla cum superiore parte decidua, inania apum cellulas referunt. In juniore ætate intus albido-farcta.

37. **Botryosphæria Liriodendri** (Cooke) Sacc. *Melogramma Liriodendri* Cooke in Rav. Fungi Am. n. 353 (nec. *Sphæria Liriodendri* Schw.). 1798

Hab. in cortice Liriodendri, Airken, Carol. inf. Amer. bor. — Specimina Ravenelii l. c. quæ observavi, sistunt *Dothiorellæ* formam; peritheciis in stromata applanata rimose erumpentia dense aggregatis, albo-farctis, vix papillatis; spermatiis oblongo-fusoideis 30 ≃ 5, ganuloso-hyalinis, breve stipitatis.

Melogrammella: ostiolis subrostratis.

38. **Botryosphæria ferruginea** (Fuck.) Sacc. *Melanops ferruginea* Fuck. Symb. myc. App. II. p. 96. — Stromatibus primo subcorticalibus, demum liberis, effusis, nigro-limitatis, 2–9 cent. long., 2–5 mill. cr., intus ferrugineis, siccis, extus nitido-nigris, valde rimosis asperisque; peritheciis in stromatis superiori parte immersis, inordinate dispositis, majusculis, globosis, rostris plus minusve elongatis, rotundato-obtusis seu acute conicis, 4–5gonis, nitidis; ascis cylindraceis, stipitatis, 8sporis, 144 ≃ 12; sporidiis oblique monostichis, oblongo-ovatis, continuis, rectis, 4–6guttulatis, hyalinis, 20 ≃ 8; paraphysibus linearibus, multiguttulatis. 1799

Hab. in truncis putridis Alni glutinosæ, Neuchâtel Helvetiæ (Morthier). — Ostiolis subrostratis et stromate ferrugineo etc. a generis typo recedit et potius *Sillicæ* analogon videtur.

39. **Botryosphæria Van Vleckii** (Schw.) Sacc., *Sph.* (cæspitosa) *Van Vleckii* Schw. Syn. Amer. bor. n. 1427, *Melogramma Van Vleckii* (Schw.) Berk. North Amer. Fungi. — Irregulariter cæspitosa, in stromate atro, subpulveraceo, cortici interiori, aut ligno ipso subaffixo, difformi et faciliter decedente; cæspitulis crassiusculis, primo epidermide omnino tectis dein assurgentibus peritheciisque truncum infestatum longe lateque quasi variolosum reddentibus, corticemque dejicientibus; peritheciis ipsis cylindrico-globosis, nigris, intus albo-farctis, rugosis, vix inter se confluentibus sed a fibris solutis sæpeque separatis; ostiolis longis, rostellatis, intermixtis brevioribus, divergentibus, demum deciduis; sporidiis fusoideis, hyalinis 15 μ. long. 1800

Hab. passim prope Salem Amer. bor. in ramis corticatis Bignoniæ radicantis.

CRYPTOSPORELLA Sacc. Mich. I, 30. (Etym. a *Cryptospora*, cujus est analogum genus). — Perithecia valsiformiter aggregata, corticola. Asci 4–8-spori, aparaphysati. Sporidia ovata vel fusoidea, continua, hyalina. — A genere *Criptospora* (sporidiis vermicularibus limitato) facillime dignoscitur sporidiis ovoideo-oblongis.

1. **Cryptosporella hypodermia** (Fr.) Sacc. Mich. I, 30 et 369, Fungi ital. t. 479, *Sphæria hypodermia* Fr. S. M. II, 407, *Valsa hypodermia* Fr. S. V. S. 412, *Cryptospora hypodermia* (Fr.) Fuck. Symb. myc. p. 192. — Stromate valseo, cortici omnino immerso nec erumpente pustulato, strato summo centrali, pulveraceo, fucato, tenui, angusto excepto, substantia corticis omnino immutata formatum; peritheciis 3–6 in singulo stromate, circinantibus, cortici immersis, sphæroideis, atris, pusillis, collis convergentibus subjunctis; ostiolis subsphæroideis vel conoideis seu elongatis, nitidis, in discum per peridermium erumpens, minutum, 0,4 mill. lat, circiter, nigrum dense stipatis; ascis subsessilibus, elongatis. utrinque attenuatis, 100–125 ≃ 16–20 p. sporif. octosporis; sporidiis tristichis vel subdistichis, fusoideo-elongatis, rectis, guttulatis, simplicibus, chlorino- vel luteolo-hyalinis, 34–50 ≃ 7–9. — Spermogonium *(Fusicoccum?)* gelatina alba, in cellulis simplicibus, sub epidermide nidulans; conidiis ovatis, cum guttula oleosa magna et episporio crasso, hyalinis, 24 ≃ 16, in stipitum simplicium apicibus. 1801

Hab. in ramis corticatis Ulmi campestris in Suecia, Fennia, Gallia, Germania, Belgio, Britannia et Italia.

2. **Cryptosporella Limminghii** (West.) Sacc. *Sphæria Limminghii* Kickx Fl. crypt. Fl. I, 323. — Pustulis subrotundis v. transverse oblongis, peridermium pustulatim elevantibus, perforantibusque; peritheciis 6–12 in quaqne pustula, sphæricis, minutis; collis cylindricis elongatis, ostiolis in discum subrotundum mamillosum, nigro-nitidulum conjunctis; ascis clavatis v. subfusoideis, aparaphysatis; sporidiis distichis elliptico-oblongis, acutiusculis, hyalinis. 1802

Hab. in ramis emortuis Ulmi, S. Georges, Courtrai, in Belgio. — Peraffinis videtur *C. hypodermiæ*, nisi eadem.

3. **Cryptosporella aurea** (Fuck.) Sacc. Mich. I, 30, Mich. 369, Fungi ital. tab. 425, *Valsa aurea* Fuck. Enum. Fungor. Nassov. p. 53, fig. 20 (1851), *V. amygdalina* Cooke Seem. Journ. (1866), *V. rutila* Tul. Carp. II, 196 (1863). — Stroma e basi orbiculari co- 1803

nicum v. convexum, plerumque plus minus protuberans, pustulatum, peridermio arctissime adhærente tectum, disco lateritio v. rutilante, ostiolis tandem nigro-punctato, coronatum; peritheciis in singulo stromate 4–10, corticis parenchymati immutato infossis, globosis, minutis, circinantibus, in collum tenuissimum attenuatis; ostiolis minimis, cylindricis nec incrassatis, obtusis, in margine disci exigui vix exsertis; ascis anguste oblongis v. fere cylindricis, sessilibus, octosporis, 108–160 ≃ 16–18; sporidiis obliquis monostichis v. pro parte distichis, elliptico-ovatis, rectis, rarius inæquilateralibus, unicellularibus, subhyalinis, 24–30 ≃ 8–12. — Status spermogonicus (*Fusicoccum?*). Pustulis minutis, siccis, demum epidermidem lacerantibus, intus niveis, simplicibus, siccis primo spermatiis minutissimis, cylindraceis, demum aliis majoribus, ascosporis valde similibus repletis.

Hab. in ramis corticatis Carpini Betuli in Germania, Gallia, Britannia et Italia.

4. **Cryptosporella Daldiniana** (De Not.) Sacc. Mich. I, 30, *Endothia Daldiniana* De Not. Recl. in Comm. II, 477. — Corticola; peritheciis insculptis, circinatis, ovoideis, rotundatisve, rostratis, convergentibus, rostro toto elongato teretiusculo, clypeo stromatico aurantio conoideo-truncato, vertice mox denudato, ostiolisque punctiformibns atris notato exceptis; ascis coacervatis, teretiusculis, tetrasporis; sporidiis ellipsoideis, episporio crassiusculo limbatis, hyalino-luteolis, continuis. 1804

Hab. in ramis siccis Coryli Avellanæ, Locarno Ital. bor. (Daldini). — *Crypt. aurea*, cui affinis, differt sporidiis duplo fere majoribus et octonis.

5. **Cryptosporella chondrospora** (Ces.) Rehm, Ascom. et Diagn. n. 335, *Cryptospora limitata* Kunze F. sel. n. 155, *Sphæria chondrospora* Ces. Hedw. I, t. 11, fig. II. — Stromatibus sub peridermio nidulantibus, idque pustulatim elevantibus, depresso-hemisphæricis, intus extusque luteolis; peritheciis in singulo stromate 1–3 globosis in collum breve conicum attenuatis, atris, 0,3 mill. diam.; ascis elongatis utrinque attenuatis, sessilibus, octosporis 95–100 ≃ 15–18, paraphysatis; sporidiis subdistichis ovoideo-oblongis, 27–32 ≃ 8–10, deorsum minus obtusis, continuis, initio nucleo crasso, dein bipartito, hyalinis. 1805

Hab. in cortice ramulorum Tiliæ platyphyllæ in Italia et Germania.

6. **Cryptosporella populina** (Fuck.) Sacc. Mich. I, 509, *Cryptospora* 1806

pupulina Fuck. Symb. myc. p. 193. — Peritheciis in cortice interiori absque stromate nidulantibus, 4–12 irregulariter dispositis, decumbentibus, globosis, in rostrum attenuatis, ostiolis exsertis, globosis, perforatis, villosis; ascis amplis, stipitatis, 8sporis, breve et parce paraphysatis 110–115 ≃ 12–16; sporidiis elliptico-oblongis, rectis v. perparum curvatis, simplicibus, 1–3guttulatis hyalinis, 14–18 ≃ 4–5. — Spermogonium sistit *Cryptosporium coronatum* Fuck. Sacculis planis, magnis, griseis, tectis, dein erumpentibus, basi annulo floccoso-radiato, albo circumdatis; conidiis oblongo-fusiformibus, utrinque obtusiusculis, simplicibus, hyalinis, in hypharum simplicium apicibus.

Hab. in ramis corticatis Populi pyramidalis in Germania, Belgio et Gallia.

7. **Cryptosporella Veneta** Sacc. Mich. I, p. 31 et 100, Fungi ital. tab. 157. — Peritheciis corticolis, hinc inde in acervulos valseos, epidermide tumidula cinctos circinato-aggregatis, globosis, intus nitidis; ostiolis longiusculis, apice incrassatis, in fasciculum vix emergentem convergentibus; ascis fusoideis aparaphysatis, 110 ≃ 20, octosporis; sporidiis imbricato-distichis, fusoideis rectiusculis, utrinque acutis, 35 ≃ 10, granuloso-guttulatis, hyalinis. 1807

Hab. in ramis Populi tremulæ, Cenegliano, Ital. bor. — (Spegazzini). — Ab affini *C. Æsculi* (Fuck.) Sacc., differt sporidiis majoribus, ostiolisque minus exertis, crassioribusque.

8. **Cryptosporella Æsculi** (Fuck.) Sacc. Mich. I, 30, *Cryptospora Æsculi* Fuck. Symb. myc. p. 193. — Peritheciis 6–8, sub corticis epidermide nidulantibus, absque stromate, irregulariter dispositis, globosis, media magnitudine, atris, ostiolis longe exsertis, gracilibus, teretibus; ascis amplis, oblongis, ad dimidiam partem sporidiis 8 repletis; sporidiis ellipticis, rectis vel perparum curvatis, 2–3 guttulalis, simplicibus, hyalinis, 26–28 ≃ 7–8. — Status conidiophorus sub epidermide demum fissa nidulans, gelatinam rubescentem exhibens; conidiis oblongo-ellipticis, uniseptatis, hyalinis, 18 ≃ 4. 1808

Hab. in ramis dejectis Æsculi Hippocastani præcipue ad pulvinulos foliorum, prope Reichartshausen Germaniæ.

9. **Cryptosporella compta** (Tul.) Sacc. Mich. I, 30, *V. compta* Tul. Sel. Fung. Carp. II, p. 196, Nits. Pyr. Germ. 219. — Stromate e basi orbiculari convexo, pustulato-protuberante, pustulis circa discum deplanatis, immo impressis, peridermio arctissime adhærente et disco minutissimo, orbiculari pertuso, ceterum plerumque integro tectis; peritheciis in singulo stromate 6–9, majusculis glo- 1809

bosis, cortici interiori haud mutato insculptis, circinantibus, in collum breve, tenue abrupte attenuatis; ostiolis exiguis, parum v. vix incrassatis, discum albido-pulverulentum, deinde cinereum vix superantibus; spermogoniis depresse conicis, truncatis, papilla pertusa, unica, in disco centrali v. duabus instructis; spermatiis cylindricis, curvulis, minutissimis, 4 ≃ 1; sterigmatibus longis, tenuissimis, subsimplicibus; ascis octosporis, sessilibus, nunc anguste clavatis v. oblongis, nunc cylindricis, 100 ≃ 16; sporidiis late ovatis, rarius subcylindricis, rectis, rarius nonnihil curvatis, monostichis v. sæpius pro parte distichis, unicellularibus, hyalinis, 16 ≃ 8, raro usque 28 ≃ 16.

Hab. in ramis corticatis Fagi sylvaticæ in Gallia et Germania.

10. **Cryptosporella sphærostoma** (Nits.) Sacc. Mich. I, 30, *Valsa sphærostoma* Nits. Pyr. Germ. p. 218. — Stromate e basi ovali conico-attenuato, depresso, minuto, in pustulas parum elevatas protuberante, peridermio arcte adhærente, disculis tantum lanceolatis v. ellipticis pertuso tecto; peritheciis in singulo stromate 3–12, corticis parenchymati immutato insculptis, circinantibus, globosis, collis brevibus instructis; ostiolorum disculo minutissimo, peridermii rimas angustas, transversim directas, plerumque nonnihil superante, ex albido cinereo v. fuscescente; ostiolis incrassatis, majusculis, globosis, atris, nitidis, in disci margine erumpentibus, poro minutissimo pertusis; spermogoniis stromatibus perithecigeris facie externa simillimis, papilla atra, pertusa, in disco elliptico v. suborbiculari, cinerascenti centrali instructis, multilocularibus, locellis radiatim dispositis; spermatiis cylindricis, nonnihil curvatis, 5–7 ≃ 1; sterigmatibus longiusculis, filiformibus, parce ramosis; ascis subclavatis, membrana apicem versus incrassata textis, deorsum longe attenuatis, octosporis, 60–80 ≃ 10–12; sporidiis subdistichis, ovatis v. cylindraceis, rectis v. nonnihil curvatis, unicellularibus, hyalinis, 16 ≃ 5–6, raro 18–24 ≃ 8. 1810

Hab. in ramis Pruni Padi prope Münster Germaniæ, raro.

11. **Cryptosporella leptasca** (P. et C.) Sacc. *Valsa leptasca* P. et C. 29 Rep. on the St. Mus. — Subpustulata, nigricans; peritheciis minutis, numerosis, in ostiola papillata v. conoidea desinentibus; ascis elongato-cylindraceis, tenuibus; sporidiis monostichis, continuis, oblongis v. elliptico-oblongis, plerumque 2-nucleatis, 7–8 μ. longis, hyalinis. 1811

Hab. in ramis Rhois typhinæ, Buffalo Am. bor. (Clinton).

12. **Cryptosporella Niesslii** (J. Kunze) Sacc. *Cryptospora Niesslii* J. Kunze Hedw. 1878, p. 46. — Pustulis corticolis, minutis, $^1/_2$–1 mill. diam., peridermium hinc inde leniter bullatim elevantibus, depresso-conicis, intus melleis v. flavidis, medio subcavis conidiophorisque (?); peritheciis subcircinantibus globulosis in ostiola cylindrica fasciculato-divergentia erumpentia desinentibus; ascis oblongis 36 ≃ 9, octosporis; sporidiis elliptico-obtusis, subinde navicularibus, continuis, 12 ≃ 3, utrinque 1-guttulatis. 1812

Hab. in ramulis Aceris Pseudoplatani prope Brünn Moraviæ (Niessl). — Cum *Diaporthe Niesslii* Sacc. non confundenda.

13. **Cryptosporella anomala** (Peck.) Sacc. *Diatrype anomala* Peck. 28 Rep. on the st. Mus. New York. — Pustulis prominulis subrotundis v. ellipticis, erumpentibus, 2–5 mill. diam., ligno subinfossis, strato nigro cinctis, disco convexo v. leniter depresso, rugoso, brunneo v. nigricante, subinde albido-pruinoso; peritheciis crebris, stromate immersis, subinde elongatis; ostiolis stipatis v. laxis, sæpe radiato-sulcatis, nigris; ascis brevibus, crassis fugacibus; sporidiis dense stipatis ellipsoideis, continuis, 7–9 μ. longis, utrinque 1-guttatis, hyalinis. 1813

Hab. in truncis Coryli Avellanæ, emortuis v. adhuc viventibus, Albany, Amer. bor.

14. **Cryptosporella innata** (B. et C.) Sacc., *Valsa innata* B. et C. North Amer. Fungi n. 874, Cooke Valsei of Un. St. 119. — Pustulis subcorticalibus, planis, ostiolis disco elevato brevi abditis; ascis cylindraceis; sporidiis monostichis, oblongis, utrinque attenuatis, 7,6 μ. longis. 1814

Hab. in ramis Castaneæ vescæ in montanis New York, Amer. bor. — Perithecia circa disculum digesta, in quo ostiola latent.

15. **Cryptosporella albofusca** (C. et E.) Sacc., *Valsa albofusca* C. et Ellis New Jersey Fungi Grev. V, p. 3, t. 75, f. 8. — Parva, epidermide tecta, erumpens; peritheciis paucis, ostiolis in disco fusco, primum albo-pulverulento, collectis; ascis arcte clavatis 100–120 μ. long.; sporidiis fusoideo-oblongis, utrinque attenuatis, continuis, multinucleatis, 40 ≃ 5, hyalinis. 1815

Hab. in ramis Quercus obtusilobæ, New Jersey Amer. bor. — Ostiola in disco albo-pruinoso nitida.

16. **Cryptosporella Ehrenbergii** (Tul.) Sacc. *Valsa Ehrenbergii* Tul. in Ann. Sc. nat. Bot. 1856 (25). — Stromate hypodermico pulvinato, sulfureo, cavernulis spermatiferis labyrintheis copiosis exa- 1816

rato; spermatiis cylindricis rectis perexiguis cirrhos rubros crassos deformesque (*Nœmaspora Ribis* Ehrenb.) sistentibus; perithecciis circinantibus crassis globosis in collum breve productis, ostiolis vix prominulis; ascis longe lateque cylindricis deorsum breve attenuatis octosporis, copiose paraphysatis; sporidiis monostichis, late ovoideis continuis.

Hab. in cortice Ribis rubri et R. Uvæ-crispæ prope Parisios Galliæ.

17. **Cryptosporella platanigera** (B. et Br.) Sacc. *Valsa platanigera* B. et Br. A. N. Hist. n. 851, t. 9, fig. 12, Cooke Handb. n. 2477. — Disco minuto albido; peritheciis globosis paucis; collis elongatis convergentibus, ostiolis obscuris; ascis clavatis breve stipitatis; sporidiis fusoideis, subdistichis, rectiusculis 17–18 μ. longis, intus granulosis. 1817

Hab. in ramis Platani, Leicestershire Britanniæ. — Perithecia in quavis pustula 4–7.

18. **Cryptosporella foraminula** (Pers.) Sacc. Mich. I, p. 30, *Sph. foraminula* Pers. in Curr. Comp. Sph. n. 131, fig. 127 (sporidiis late navicularibus 28–40 μ. long., subinde nucleatis, hyalinis in ascis crasse clavatis distichis) mihi nunc videtur potius forma nondum plene evoluta *Pseudovalsæ lanciformis* seu *Sph. foraminosæ* Pers. et Moug. 1818

Cryptosporella? erinacea (Mont.) Sacc. Videas *Hypoxylon erinaceum* Mont. (Cfr. Syll. nostra 1497).

REPERTORIUM

SPHÆRIACEARUM HYALOSPORARUM

SECUNDUM MATRICES

Obs. B. indicat *Botryosphæria.* — C. *Ceratostomella.* — Ca. *Camptosphæria.* — Cr. *Cryptosporella.* — D. *Ditopella.* — G. *Gnomoniella.* — L. *Læstadia.* — P. *Phomatospora.* — Ph. *Physalospora.* — Po. *Polytrichia.* — T. *Trabutia.* — Tr. *Trichosphæria.* — U. *Urospora.* — W. *Wallrothiella.*

Abies — Tr. 744. — W. 758.
Acacia — Ph. 723.
Acer — C. 546. — L. 604. 636. 637. — Ph. 612. — Tr. 754. — B. 763. 790. — Cr. 812.
Æsculus — B. 763. — Cr. 808.
Ailanthus — C. 763.
Aletris — Ph. 670.
Alnus — C. 546. 547. — G. 567. 573. L. 593. 618. — Ph. 660. 684. — D. 735. 736. — Fr. 752. — B. 799.
Althæa — Ph. 691.
Andromeda — Ph. 703.
Andropogon — P. 650. — Ph. 657.
Anethum — Ph. 711.
Angelica — G. 582.
Arabis — P. 650.
Araceæ — Ph. 725.
Arceuthobium — W. 756.
Arctostaphylos — B. 763.
Arundo — Ph. 657.
Astragalus — Ph. 668. 669.
Aucuba — Ph. 663.
Azalea — Ph. 612.

Bambusa — Ph. 719.
Berberis — L. 613. — D. 738.
Betula — C. 546. 557. — G. 567. 571. 572. — Tr. 741. — W. 757.
Bignonia — B. 800.
Brassica — Tr. 745.
Bupleurum — L. 624.
Buxus — L. 607.

Calluna — Ph. 721.
Calycanthus — B. 796.
Carex — L. 642. — Ph. 656. — Tr. 748.
Carpinus — C. 547. 552. — G. 567. 573. 589. — L. 619. — Tr. 753. — Cr. 803.
Cassia — Ph. 707.
Castanea — L. 614. — W. 759. — B. 797. — Cr. 814.
Ceanothus — Ph. 692.
Cephalaria — L. 615.
Chamærops — C. 565.
Chionanthus — B. 770.
Cicuta — L. 643.
Citrus — L. 599. — Ph. 671.
Clematis — Ph. 673.
Clethra — Ph. 612.
Cocos — L. 646.
Codiæum — L. 627.
Comarum — G. 575. 576.
Corallina — Ph. 727.
Cornus — L. 606.
Corylus — G. 568. 569. 573. 578. 590.

— Ph. 663. — Tr. 741. 742. — Cr. 804. 813.
Corynocarpus — L. 625.
Cratægus — B. 769.
Cupressus — Ph. 679. 713.
Cytisus — Ph. 722.

Daucus — P. 653.
Desmodium — Ph. 704.
Deutzia — B. 763.
Dianthus — L. 616.
Dioscorea — L. 641.
Diospyros — B. 775.
Dolichos — Ph. 705.

Echium — Ph. 694.
Elodes — Ph. 697.
Epilobium — L. 638, 645.
Erica — L. 633.
Eriobotrya — Ph. 660.
Eupatorium — Ph. 694.
Euphorbia — G. 583, 586, 587. — Ph. 666, 667.
Euphrasia — L. 649.

Fagus — C. 546, 548, 550, 551, 553. — Cr. 809.
Festuca — Ph. 657.
Ficus — Ph. 660. — T. 734. — B. 777, 782, 783.
Frangula — B. 763.
Fraxinus — G. 568. — L. 626. — B. 774.

Galeopsis — P. 650.
Galium — P. 655.
Gelsemium — Ph. 680.
Gleditschia — B. 786. 792.
Gossypium — B. 789.
Graminaceæ — L. 608. 630.

Hedera — Ph. 693.
Heracleum — B. 794.
Hibiscus — B. 779.
Hippophaë — P. 650.
Hosackia — D. 739.
Hypericum — Ph. 682.

Iania — Ph. 727.
Iasminum — L. 623.
Ilex — Ph. 685.
Iuglans — B. 763. 765. 793.
Iuncus — P. 652.
Iuniperus — Ph. 713.
Iussiæa — P. 651.

Lappa — P. 650.
Lathyrus — P. 650. — Ph. 681.
Laurus — Ph. 702. — Tr. 749.
Leguminosæ — Ph. 617.
Libocedrus — W. 758.
Liquidambar — 568.
Liriodendron — B. 798.
Ludwigia — Ph. 720.
Lunularia — Ph. 729.
Luzula — Ph. 709. — Tr. 748.

Magnolia — B. 763.
Melaleuca — Ph. 698.
Melastoma — L. 631.
Melia — B. 778.
Menispermum — B. 763.
Miconia — Ph. 724.
Milium — L. 609.
Morus — B. 763.
Musa — Ph. 670.
Myristica — Ph. 708.
Myrtaceæ — T. 734.

Nicotiana — L. 617.
Nyssa — C. 564.

Obione — C. 560. Ph. 728.
Œnanthe — Ph. 726.
Œnothera — Ph. 687.
Ostrya — G. 578.
Oxalis — L. 635.

Peucedanum — Ca. 566. — L. 629.
Phellandrium — L. 644.
Phragmites — L. 608. 647. — Ph. 657.
Pinus — C. 547. 559. 561. — L. 621. Fr. 741. 743. 747.
Platanus — L. 600. 601. — B. 763. — Cr. 817.

Poa — G. 581.
Populus — L. 598. — B. 763. 795. — Cr. 806. 807.
Polygala — B. 763.
Polygonum — G. 583. 484. 585.
Prunus — G. 580. — Ph. 600. 663. — B. 763. 766. — Cr. 810.
Psidium — T. 734.
Psoralea — Ph. 716.
Pterocarpus — Ph. 715.
Pyrus — L. 639.

Quercus — C. 546. 547. 549. 552. 555. 556. — G. 574. — L. 592. 595. 596. 602. 603. 605. 622. — Ph. 714. — U. 732. — T. 733 — Tr. 741, 744. W. 760. — B. 762, 763, 767, 785. Cr. 815.

Rhododendron — L. 620, 632. — Ph. 664.
Rhus — Ph. 701, 718. — B. 763, 771, 776. — Cr. 811.
Ribes — G. 577. — Cr. 816.
Ricinus — B. 773, 781.
Rosa — G. 579. — L. 594. — Ph. 662. 696, 710. — B. 763, 774.
Rubus — G. 588. — Ph. 702.

Salix — C. 558. — G. 573. — Ph. 660 676, 678. — W. 755. — B. 773.
Sambucus — P. 650.
Scirpus — P. 650. — Ph 657.
Secale — Po. 740.
Sequoia — Ph. 688.
Sesleria — Ph. 658.
Smilax — Ph. 672.
Solanum — P. 650.
Solidago — Ph. 696.
Sophora — 763.
Sorbus — L. 597.
Spartium — Ph. 665.
Statice — Ph. 661.

Taxus — Ph. 660.
Tilia — G. 591. — Ph. 677. — B. 763. Cr. 805.
Triticum — L. 610. — Po. 740.

Ulmus — L. 567. — L. 640. — D. 737. B. 768. — Cr. 801. 802.

Vaccinium — Ph. 674.
Viola — L. 648.
Vitis — Ph. 690. — B. 787.

Wisteria — B. 772.

Yucca — P. 654. — Ph. 689.

Xanthoxylon — Ph. 706.

Sect. 4. **Hyalodidymæ** Sacc.

(Didymosporæ Sacc. Consp. gen. Pyr. p. 9, ex parte).

Sporidia ovoidea v. oblonga v. fusoidea, 1-septata, hyalina v. subhyalina.

Clavis analytica generum.

A) Simplices.

a) Tectæ v. subtectæ.

1. Perithecia erostrata.

Sphærella. Perithecia innata, laxe tenuiterque contexta. Asci aparaphysati. Sporidia prope medium septata.

Apiospora. Perithecia innata, solidiuscule contexta. Asci paraphysati. Sporidia prope basim septata.

Stigmatea. Perithecia prominula, crassiuscule contexta, nucleo albo. Asci pseudoparaphysati Sporidia didyma, luteola v. hyalina.

(Hypospilina. Est Hypospila hyalodidyma, ad interim huic generi subjuncta, quod videas inter *Hyalophragmias).*

Didymella. Perithecia solidiuscule v. tenuiter contexta. Asci paraphysati. Sporidia prope medium septata.

2. Perithecia rostellata.

Gnomonia. Perithecia submembranacea, ostiolo rostellato, centrali v. laterali. Asci aparaphysati, rarius paraphysati.

b) Subsuperficiales.

1. Perithecia erostrata.

† Perithecia glabra (v. initio pilis conidiophoris raris adspersa).

Epicymatia. Perithecia levia, lichenicola, solidiuscula, hemisphærica, exigua. Fructificatio fere *Sphærellæ.*

Lizonia. Perithecia levia, non lichenicola, sphæroidea v. ovoidea, prominula, obtusa, subcoriacea. Asci aparaphysati et sporidia majuscula.

Melanopsamma. Perithecia lævia sphæroidea, papillata, subcarbonacea. Asci (saltem spurie) paraphysati.

Bertia. Perithecia rugosa, carbonacea, majuscula, vix papillata. Asci non v. rarius paraphysati. Sporidia teretiuscula.

2. Perithecia rostellata.

Lentomita. Perithecia subcarbonacea, sæpius xylogena, ostiolo rostellato. Asci paraphysati.

†† Perithecia setis vestita.

Venturia. Perithecia typice phyllogena, minuta, submembranacea. Asci aparaphysati. Sporidia hyalina v. chlorina.

Eriosphæria. Perithecia typice ligni- v. corticola, subcarbonacea. Asci (saltem spurie) paraphysati.

B) Cæspitosæ.

Gibbera. Perithecia congregata, subsuperficialia, stromate parcissimo, subglobosa, solidiuscula, breve setulosa. Sporidia e flavido hyalina.

Myrmœcium. Perithecia botryoideo-aggregata, glabra, intus alba, stromate depresso-pulvinato intus albido inserta. Sporidia hyalina.

C) Compositæ, stromaticæ.

Endothia. Stroma diatrypeum, crocatum. Perithecia immersa, nigricantia. Sporidia exigua.

Melanconis. Stroma valseum nigricans v. flavidum. Perithecia circinantia. Sporidia mediocria, mutica v. appendiculata. Status conidicus *Melanconium* sistens.

Hercospora. Stroma valseum nigricans. Perithecia circinantia. Sporidia mutica. Pycnidium *Rabenhorstiam* sistens.

Diaporthe. Stroma valseum v. diatrypeum v. eutypeum. Sporidia mutica v. appendiculata. Spermogonium *Phomæ* species (spermatiis longe stipitatis) sistens.

SPHÆRELLA Ces. et De Not. Schema Sfer. p. 62 p. p., Sacc. Gen. Pyr. p. 9 (Etym. a *Sphœria*). — Perithecia tenui-membranacea, globoso-lenticularia, epidermide velata v. erumpentia, ostiolo impresso v. breve papillato pertusa. Asci aparaphysati, octospori. Sporidia elliptica v. oblonga, bilocularia, hyalina v. subhyalina. — Spermogonia et conidia in pluribus nota. — Fungilli numerosissimi, exigui, punctiformes, sæpissime foliicolæ raro clado-carpogeni. Conferantur genera, pluribus notis *Sphœrellæ* affinia: *Stigmatea, Apiospora, Didymella* et *Epicymatia*.

I. *In Dicotyledoneis parasiticæ.*

a) Arboricolæ.

† *Foliicolæ.*

1. **Sphærella punctiformis** (Pers.) Rabh. Herb. myc. II, 264, *Sphœria punctiformis* Pers. Syn. p. 90, Fr. S. M. II, p. 525, nec Desm., nec Fuck., *Sphœrella sparsa* Auersw. Myc. Eur. Pyr. p. 4 p. p. fig. 4, 27, 39, *Sphœria perexigua* Lév. Fragm. myc. p. 144. — Sparsa; peritheciis innatis punctiformibus, lævibus, subnitidis, nigris, prominulis, collabascendo umbilicatis, poro simplici pertusis, 60–120 μ. diam., ascis tereti-clavatis, subsessilibus basi attenuatis, 28–45 ≃ 7–9; sporidiis distichis v. incumbenti-monostichis, obovato-oblongis, uniseptatis, constrictis, 6–9 ≃ 2–3,5, hyalinis, loculo inferiore acutiore. 1819

Hab. in pag. infer. foliorum Quercuum, rarius Fagi, Castaneæ, Æsculi, Caryæ, Lyoniæ, Corni in tota fere Europa et Amer. boreali.

2. **Sphærella maculiformis** (Pers.) Auersw. Myc. Eur. Pyr. p. 5, f. 1 et 109, *Sph. maculiformis* Pers. Syn. p. 90, Fr. S. M. II, p. 524. — Hypophylla; peritheciis innato-prominulis punctiformibus, globosis, nigris, in maculas inæquales conglomeratis, 70-80 μ. lat. poro pertusis; ascis tereti-clavatis, sessilibus, 50-60 ≃ 7-8, octosporis; sporidiis biseriatis, obovato-oblongis, uniseptatis, constrictis, 14 ≃ 3-4 (rarius 2). — Spermogonia sistunt *Septoriam quercinam* Desm. et probabiliter quoque *Sph. castanicolam* Desm. 1820

Hab. in pag. inf. foliorum dejectorum Quercus, Castaneæ, rarius Æsculi, Carpini, Tiliæ, Platani, Fraxini, Vaccinii etc. in tota fere Europa et America boreali. — Maculæ ½-1 mill. diam., venulis limitatæ, hinc angulosæ.

3. **Sphærella nigrita** Cooke Some Extra-eur. Fungi in Grevill. VII, p. 13. — Hypophylla; peritheciis semiimmersis, in maculas orbiculares nigrescentes congestis; ascis clavatis; sporidiis elongato-ellipticis, uniseptatis, hyalinis, 15 ≃ 4. 1821

Hab. in foliis quercinis, New York Amer. bor. (Gerard.).

4. **Sphærella oblivia** Cooke Handb, n. 2746, *Sph. maculiformis* var. Auersw. Myc. Eur. Pyr. fig. 7. — Peritheciis semiinnatis, nigris, hinc inde 10-20 in maculas minutas, crebras, atras, dense aggregatis; ascis cylindricis; sporidiis biseriatis, curvulis, uniseptatis loculo inferiore tenuiore, chlorinis 12-15 μ. longis. — Sec. Cooke l. c. *Septoria castanicola* Desm. est spermogonium. 1822

Hab. in pag. infer. foliorum emortuorum Castaneæ vescæ in Britannia, socia genuina *Sph. maculiformi*, nec non in foliis Rhododendri maximi, Buffalo Amer. bor. (Peck, 28 Rep.).

5. **Sphærella familiaris** Auersw. Myc. Eur. pag. 6. fig. 10. — Peritheciis hypophyllis, nigris, opacis, epidermidi innatis, gregariis, sed non maculas formantibus, depresso-globosis, imo lentiformibus, poro simplici pertusis, 140 μ. latis; ascis creberrimis, tenerrimis, clavatis, in stipitem filiformem attenuatis, 8-sporis, 60 ≃ 10-12, p. sporif. 30-36 μ. longa; sporidiis biserialiter stipatis, obovato-oblongis, uniseptatis, pallide luteolis, 7-9 ≃ 4-5. 1823

Hab. in pag. infer. foliorum Quercus sæpius cinerascentium in Germania.

6. **Sphærella spleniata** C. et Peck. 25 Rep. 105. — Peritheciis minutis, dense aggregatis, maculasque latas subcirculares aut angulatas efficientibus, nigris, globosis, foliorum tomento nidulantibus; ascis linearibus; sporidiis oblongis, uniseptatis, 12-15 μ. long., hyalinis. 1824

Hab. in America boreali, Greenbush, in pagina infer. foliorum Quercus bicoloris.

7. **Sphærella Catesbeyi** Cooke Grev. VII, p. 53. — Hypophylla, immersa; peritheciis sparsis, sæpe 2–4 congestis, cuticula tectis, demum rimose erumpentibus; sporidiis lanceolatis, uniseptatis 20–22 ≃ 4. 1825

Hab. in foliis Quercus Catesbeyi, Darien Carol. Amer. bor. 1826

8. **Sphærella simulans** Cooke in Journ. of Bot. Aug. 1866, p. 246, t. 50, f. 2. Handb. n. 2784. *Sphæria maculiformis* Auersw. p. p. M. Eur. Pyr. p. 5, fig. 7. — Peritheciis hypophyllis, in maculam nigram inæqualem conglomeratis, per epidermidem laciniatim ruptam leviter emergentibus, sphæroideis, poro pertusis, atris, latit. circiter 90 μ.; ascis subsessilibus, fusoideo-bacillaribus elongatis, 38–50 ≃ 7–8 octosporis; sporidiis distichis, subovoideo-elongatis, curvulis, paullo extra medium uniseptatis, ad septum haud vel vix constrictis, hyalinis, 14–20 ≃ 3–4.

Hab. in foliis Quercus emortuis dejectis in Britannia et Fennia. — A *Sph. maculiformi* præcipue sporidiis curvulis majoribus differt.

9. **Sphærella Ravenelii** Cooke Rav. Am. Fungi in Grevill. VII. p. 53. — Hypophylla, totam paginam occupans; peritheciis minimis, vix conspicuis, brunneis; ascis clavatis; sporidiis ellipticis, uniseptatis, superne leniter incrassatis, 8 ≃ 4. 1827

Hab. in foliis Quercuum, Aiken Carol. Amer. bor.

10. **Sphærella Ailanthi** Cooke Grev. VI, p. 146. Rav. Fung. Amer. Cent. III. — Gregaria, maculæformis; peritheciis parvis, atro-brunneis, in maculas irregulares congestis; ascis clavatis; sporidiis ellipticis, uniseptatis, 6 ≃ 3. 1828

Hab. in foliis Ailanthi, Aiken, Carolina inf., Amer. bor.

11. **Sphærella Æthiops** Fuck Symb. Myc. p. 106, Auersw. Myc. Eur. Pyr, p. 5, fig. 86. — Peritheciis dense gregariis, subsuperficialibus, minutis, planis, aterrimis, maculam usque lineam lat., aterrimam formantibus, dein ore longitudinali fissis; ascis clavatis, 24–27 ≃ 7–8, 8-sporis; sporidiis subclavato-oblongis, didymis, hyalinis, 8–9 ≃ 2–3. 1829

Hab. in foliis adhuc pendulis siccis Quercus, Judensand Germaniæ. — Maculæ $^1/_2$–1 mill. latæ.

12. **Sphærella harthensis** Auersw. Myc. Eur. p, 9, fig. 37. — Peritheciis hypophyllis, nigris, opacis, epidermidi innatis, dense gregariis, maculas cinereas, $1^1/_3$–$1^1/_2$ μ. latas, angulosas, venulis plus 1830

minus limitatas formantibus, globosis, poro simplici perforatis, 60–80 μ. latis; ascis clavatis, subsessilibus, 8-sporis, 50 ≃ 8; sporidiis biserialibus, lanceolatis vel subfusiformibus, utrinque obtusis, leviter incurvis, uniseptatis, ad sepimentum non constrictis, hyalinis, 14 ≃ 3.

Hab. in pagina inferiori foliorum Betulæ in Germania. — Peraffinis *Sphæriæ maculiformi*, a qua sporidiis æqualiter didymis præcipue differt.

13. **Sphærella Lantanæ** (Nits.) Auersw. Myc. Eur. Pyr. p. 6, fig. 31. 1831
Sphæria Lantanæ Nits. in Fuck. Symb. p. 105. — Peritheciis hypophyllis, nigris, epidermidi innatis, sparsis vel gregariis (gregibus venulis limitatis), globosis poro simplici pertusis, 80–100 μ. latis; ascis clavatis, sessilibus 8-sporis, 34 ≃ 7; sporidiis elongato-oblongis, uniseptatis, ad sepimentum non constrictis, biserialiter stipatis, hyalinis 10 ≃ 2 μ.

Hab. in pag. inferiore foliorum Viburni Lantanæ in Germania (Fuck. et Auersw.).

14. **Sphærella Viburni** (Nitschke) Fuck. Symb. myc. 106 et Schröt. 1832
Hedw. 1876, p. 118. *Sphæria Viburni* Nits. herb. — Peritheciis hypophyllis, perexiguis, 60–80 μ. diam., velatis, prominulis, poro pertusis, nigris; ascis tereti-oblongis, 38 ≃ 10, octosporis; sporidiis distichis, fusoideis, uniseptatis, vix constrictis, loculo sup. paulo crassiore, hyalinis, 15–17 ≃ 4,5–5.

Hab. in foliis exsiccatis putridisque Viburni Opuli in Germania.

15. **Sphærella crepidophora** (Mont.) Sacc. *Depazea crepidophora* Mont. 1833
Syll. Crypt. n. 992 et in Berkeley, Fung. Lusit. Welwitschii, in Bot. Zeit, 1854, p. 95. — Maculis orbicularibus, fuscis, sero griseis, fusco-limitatis; peritheciis minimis; ascis soleæformibus minutis, sporidiis oblongis uniseptatis.

Hab. in foliis vivis Viburni Tini, in Lusitania (Welwitsch).

16. **Sphærella Tini** Arcang. Erb. Cr. It. n. 822. — Maculas fusco- 1834
cinerascentes exaridas, margine purpureo cinctas efformans; peritheciis minutis punctiformibus subglobosis superne poro dehiscentibus; ascis subclavatis, vel ellipsoideo-elongatis, apice subacutatis; sporidiis fusiformibus guttulas hyalinas nonnullas plerumque foventibus, bicellularibus. Pycnidia quoque adsunt immersa, stylosporis elongatis 22 ≃ 1 bicellularibus.

Hab. in foliis Viburni Tini in horto Boboli, Firenze, Italia media. — Verisimiliter non diversa a *Sph. crepidophora* (Mont.).

17. **Sphærella topographica** Sacc. et Sp. Mich. I. 380 et F. it. t. 385. 1835
— Peritheciis hypophyllis, hinc inde dense disseminatis, punctiformibus, epidermide initio velatis, globoso-lenticularibus, poro pertusis, $^1/_{10}$ mill. diam., contextu subcarbonaceo, atro, ascis cylindraceo-clavatis, 70–75 ≃ 8–10, breve stipitatis; apice tunica incrassata integra rotundatis, aparaphysatis, octosporis; sporidiis 2–3-stichis, elongato-fusoideis, 28–30 ≃ $3^1/_2$–4, curvulis, 1-septatis vix constrictis, utrinque acutiusculis, hyalinis.

Hab. in foliis languidiis Sorbi torminalis, ubi minimas urbium topographias æmulatur, prope Conegliano, vere 1878, socia *Septoria hyalospora* (Mont. et C.) Sacc. ejusdem probabili spermogonio. — A *Sphærella cinerascente* Fuck. valde differt.

18. **Sphærella Taxi** Cooke Grev. VI. p. 128. — Epiphylla; perithe- 1836
ciis gregariis, totam foliorum superficiem occupantibus, nigris, leniter prominulis; ascis cylindraceis; sporidiis ellipticis, denique uniseptatis (?).

Hab. in foliis Taxi baccatæ, Cornwall Britanniæ (E. T. Boscawen).

19. **Sphærella Pinsapo** Thüm Contr. Fungh. Lit. n. 301. — Peri- 1837
theciis epiphyllis, sparsis vel subgregariis, minutis, epidermide primo velatis demum perforantibus, subconicis, nigris, sine macula; ascis sessilibus, anguste cylindraceis, apice acutato-rotundatis, basi angustatis, rectis vel subcurvis, achrois, 38–44 ≃ 7, octosporis; sporidiis distichis, elliptico-cylindraceis, utrinque subacutatis, medio-septatis, sed non constrictis, bi-quadrinucleatis, rectis, achrois, 10 ≃ 4.

Hab. in Abietis Pinsapo foliis emortuis decoloratisve, Pola, Istria.

20. **Sphærella Ligustri** (Desm.) Cooke Handb. n. 2760 Auersw. Myc. 1838
Eur. Pyr. p. 7, fig. 97. *Sphæria Ligustri* Rob. et Desm. Nouv. Not. 1843, p. 45. — Epi- rarius hypophylla; peritheciis minutissimis numerosis, dense sparsis, atris, subglobosis, poro pertusis, dein collabascendo umbilicatis, 100 μ. diam., ascis tereti-clavatis, subsessilibus, 30–34 ≃ 5–7, octosporis; sporidiis monostichis v. subdistichis, obovato-oblongis, utrinque rotundatis, uniseptatis, leniter constrictis, hyalinis, 10 ≃ 4.

Hab. in foliis exsiccatis Ligustri vulgaris, in Gallia, Germania, Britannia, talia.

21. **Sphærella Laburni** Pass. in Erb. Cr. It. n. 1069. — Peritheciis 1839
sæpius epiphyllis, punctiformibus, atris, in maculis marginalibus ir-

Hab. ad ligna et cortices Aceris etc. in Amer. bor. (Schwein., Farlow). — Solitaria, major, late conica, superficiali-innata, glaberrima, vix nisi sub lente perspicue rugulosa. Ostiolum distincte pertusum.

23. **Melanopsamma? europæa** Speg. Fungi Arg. Pug. IV, n. 150. — 2270
Peritheciis innato-superficialibus, basi matrici parce infossis, globoso-depressis, 250-350 μ. diam., ostiolo minuto, papillato-truncato donatis, sparsis vel gregariis, atris, subnitentibus, carbonaceis; ascis fusoideo-clavatis, sursum subtruncato-rotundatis deorsum in pedicellum parvulum attenuatis, 80-84 ≃ 12-14, octosporis, paraphysibus filiformibus, densiusculis obvallatis; sporidiis distichis, fusoideo-ellipticis, utrinque obtusiusculis, 27-28 ≃ 6-7, primo medio tantum 1-septato-constrictis, 4-6-guttulatis (dein triseptatis hyalinis, strato mucoso tenui ad apicem incrassato obvolutis).

Hab. in sarmentis putrescentibus Rubi discoloris in dumetis prope S. José de Flores, Argent. Amer. merid. — Species notis plurimis fructificationis *Lophiostomatibus* affinis videtur, sed adhuc ostiolum umboniforme poro rotundo pertusum visum est. « An *Massariella?* ».

24. **Melanopsamma? Diana** Speg. Fungi Arg. Pug. IV, n. 149. — 2271
Peritheciis laxe gregariis, lenticulari-hemisphæricis, 250-300 μ. diam., atris, glaberrimis, subcarbonaceis, epidermide velatis, prominulis, ostiolo vix papillulato erumpente, non exerto ornatis; ascis cylindraceo-clavatis, sursum obtuse rotundatis ac crasse tunicatis, deorsum breviter attenuato-pedicellatis, 95-110 ≃ 16-18, octosporis paraphysibus filiformibus obvallatis; sporidiis recte vel oblique distichis, ellipticis vel elliptico-elongatis, rectis vel inæquilateralibus, utrinque attenuato-rotundatis, 30-35 ≃ 9-10, primo medio 1-septato-constrictis, loculis grosse 2-guttulatis, stratoque crassiusculo, 2-3 μ. crass., obvolutis (dein muco destitutis, 3-septato-constrictis, hyalinis; an postremo fuligineis?).

Hab. in ramis dejectis putrescentibus Cephalanthi Sarandi in dumetis uliginosis à las Conchas, Argent. Amer. merid. — Species a genere *Malanopsamma* longe abhorrens et facile ad novum genus trahenda: characteres peritheciorum *Didymosphæriæ*, fructificationis fere *Massariæ*, ab utroque tamen valde diversa. « Probabiliter *Massariella* ».

BERTIA De Not. in Giorn. bot. ital. I, p. 335 (Etym. a Doct. *Josepho Berti*, botanophilo ex Porto Maurizio Ital. bor.). — Perithecia su-

26. **Sphærella Pomacearum** (Crié sub *Dep.*) Sacc., Crié, Sur les Dep. p. 40, tab. VI, fig. 2. — Maculis valde variis epi-hypophyllis; peritheciis nigris; ascis cylindraceis, rectis, octosporis; sporidiis sæpissime monostichis, obovatis, uniseptatis, vix constrictis, dilute virescentibus, 11 ≃ 4–5. 1844

Hab. in Gallia in foliis Malorum, Pyrorum, Cydoniarum etc., hieme, sociis spermogoniis (*Septoria*) et pycnidibus (*Diplodia* etc.).

27. **Sphærella sentina** (Fr.) Sacc. (nec Fuck.) *Sphæria sentina* Fr. S. M. II, p. 520, sec. Desm. 22 Not. p. 15. — Peritheciis amphigenis subaggregatis, papillulatis, $^1/_5$–$^1/_6$ mill. diam., denique subsuperficialibus; ascis cylindraceis, 75 ≃ 10; sporidiis monostichis, vel inferius distichis, 1-septato-biconicis, 15 ≃ 5, subolivaceis. 1845

Hab. in Gallia, Germania, Belgio et Suecia, in foliis Pyri et Mali. — Videretur *Venturia* decalvata.

28. **Sphærella Pyri** Auersw. Myc. Eur. Pyr. p. 11, fig. 34, *Sphæria sentina* Wallr. Fl. crypt. p. 775, Fuck. Symb. p. 104 (nec Fr. nec Desm.). — Peritheciis hypophyllis, dense gregariis, nigris, epidermide velatis, dein suberumpentibus, globulosis, poro pertusis, 120–140 μ. latit.; ascis clavatis, subsessilibus, octosporis, 70 ≃ 9; sporidiis fusoideis, subcurvatis, v. subsigmoideis, utrinque obtusis, 27–31 ≃ 4, uniseptatis, non constrictis, hyalinis. 1846

Hab. in foliis siccis Pyri communis in Germania, Italia, Amer. austr. frequens.

29. **Sphærella septorioides** (Desm.) Niessl in Kunze Fungi sel. n. 242, *Sphæria* (foliicola) *septorioides* Desm. 13 Not. 1846, p. 81. — Maculis amphigenis, minutis, viridulis, dein magnis suborbiculatis olivaceo-brunneis; peritheciis hypophyllis, microscopicis, numerosissimis, innato-prominulis, globosis, olivaceis, fuscis, intus albis, poro dilatato apertis; ascis tenerrimis, linearibus; sporidiis minutissimis, monostichis, cylidraceis, 5-6 μ. long. plasmate bipartito. 1847

Hab. in foliis languescentibus Aceris campestris in Gallia et Belgio.

30. **Sphærella latebrosa** Cooke Handb. n. 2754, Auersw. Myc. Eur. Pyr. p. 10, f. 26. — Hypophylla; peritheciis sparsis, innatis, minutis, globosis, nigris, in epidermide rupta, non conspiciendis; ascis cylindraceis, ventricosis, 60 ≃ 9, aparaphysatis, octosporis; sporidiis elongatis, uniseptatis, constrictis, utrinque subattenuatis, 4-guttulatis. 1848

Hab. in foliis emortuis Aceris Pseudoplatani in Britannia (Cooke), Germania (Rehm) et Italia (Bagnis).

31. **Sphærella pardalota** C. et E. New Jersey Fungi in Grevill. VI, p. 16, t. 96, fig. 23. — Peritheciis minutis, globosis, atris, semi-immersis, in maculas irregulares venulis limitatas congestis; ascis minutis clavatis; sporidiis anguste ellipticis, uniseptatis, 8 ≃ 3,5. 1849

Hab. in foliis Myricæ, socia *Gnomon. Myricæ* in New Jersey, America boreali.

32. **Sphærella parvimacula** Pass. Diagn. Funghi nuovi n. 5. — Peritheciis minimis gregariis in macula exigua, atra, irregulari, hypophyllis; ascis valde numerosis, brevibus, obovato-clavatis, 8sporis? vel oligosporis; sporidiis cylindrico-fusiformibus, medio septatis, hyalinis. 1850

Hab. in foliis dejectis Fagi in M. Dosso, prov. Parma, Ital. bor. — *Sph. Atomus* Desm, et *Sph. Fagi* longe diversæ sunt.

33. **Sphærella Fagi** Auersw. in Mycol. Eur. Pyr. p. 6, t. II, f. 19–20, *Sphœrella Atomus* plur. auct. non Desm. — Peritheciis vere punctiformibus, amphigenis, nigris, nitidulis, epidermide innatis sparsis v. gregariis subglobosis, vix perforatis 80–100 μ. diam.; ascis cylindraceis, 30–45 ≃ 4–5, subsessilibus, apice rotundatis; sporidiis distichis v. oblique monostichis oblongis, 7–8 ≃ 2–2½, constricto-1-septatis, utrinque obtusiusculis, hyalinis. 1851

Hab. in foliorum languidorum Fagi sylvaticæ sæpius pagina infer., in Germania, Britannia, Helvetia, Gallia, Italia bor.

34. **Sphærella Cratægi** Fuck. Symb. myc. p. 105. — Hypophylla; peritheciis plerumque seriatis et maculas angulatas formantibus, nigris minutis, tectis, ostiolis, prominulis, atris, perforatis; ascis anguste elongatis, 55–65 ≃ 13–14, 8sporis; sporidiis lanceolatis, rectis seu perparum curvatis, diu simplicibus, dein uniseptatis, 40 ≃ 4. — Forte *Septoria Oxyacanthæ* sistit spermogonium. 1852

Hab. in foliis exsiccatis Cratægi Oxyacanthæ in Germania et Britannia.

35. **Sphæria Ligea** Sacc. F. Ven. Ser. II, p. 300. — Maculis epiphyllis minutis subrotundis, saturate sanguineis, dein centro pallescentibus; peritheciis in centro maculæ paucis (1–8) e globoso lentiformibus, minutis, ca. 100 micr. diam., contextu parenchymatico, tenui, fuligineo, ostiolo impresso; ascis oblongo-clavatis, subsessilibus, 50 ≃ 12, 8sporis; sporidiis distichis, ovoideis, didymis, 18–20 ≃ 7, loculis subinæqualibus, hyalinis, 4-guttulatis. — Status spermogonicus: *Septoria Rubi* (Duby) West. 1853

Hab. in foliis languentibus Rubi fruticosi, prope Treviso, Ital. bor. socia *Septoria* et *Sphœrella Chamœmori* Karst. M. F.

II, 173, differt a mea maculis hypophyllis fuscescentibus et sporidiis crassioribus.

36. **Sphærella Winteri** (Pass.) Sacc., *Stigmatea Winteri* Pass. Diagn. funghi nuovi n. 3. — Peritheciis punctiformibus, in maculas suborbiculares fuscas tandem exaridas et mox laceratas sparsis, epidermide tectis, ostiolo ut plurimum nullo vel saltem imperspicuo; ascis clavato-lanceolatis, 8sporis; sporidiis subdistichis, oblongo-fusiformibus, rectis vel curvulis, medio 1-septatis, loculo altero vix angustiore, hyalinis. 1854

Hab. in foliis vivis Rubi corylifolii prope Collecchio prov. Parma in Italia boreali.

37. **Sphærella Chamæmori** Karst. Myc. Fenn. II, pag. 173. — Peritheciis hypophyllis, sparsis, maculæ fuscescenti plerumque insidentibus, vertice epidermidem excedente obtusissime umbonatis, sphæroideis, poro minuto pertusis, atris, vix 0,1 mill. lat.; ascis breviter pedicellatis, elongatis, deorsum oblique inflatis, 70-84 ≃ 14-18 octosporis; sporidiis supra monostichis, infra distichis, ovoideo-oblongatis, paullo extra medium uniseptatis, ad sepimentum vix vel levissime constrictis, luteolo-hyalinis vel hyalinis, 18-20 ≃ 8-9. 1855

Hab. in foliis Rubi Chamæmori aridis frequens in Fennia.

38. **Sphærella circumdans** Pass. Diagn. Funghi nuovi n. 6. — Epiphylla; peritheciis laxe gregariis vel sparsis minutis, primo tectis, deinde denudatis, atris, globulosis, folii languidi zonam marginalem exaridam occupantibus; ascis brevibus subventricosis curvulis, apice rotundatis, 8sporis; sporidiis oblongis, medio septatis, vix constrictis, loculis inæqualibus, hyalinis. 1856

Hab. in foliis languidis Platani adhuc pendulis, Parma Italiæ borealis.

39. **Sphærella Gibelliana** Pass. in Myc. univ. n. 462, Arch. Critt. p. 382, t. XXIII, fig. 5-6. — Peritheciis exiguis, 100-150 μ. diam. poro 10-15 μ. diam., pertusis, in macula exarida, plus minus ampla, sparsis, subglobosis, epidermide tectis, tandem denudatis, vertice collapsis; ascis, oblongo-clavatis, 40 ≃ 6, crassiuscule breve stipitatis, octosporis; sporidiis distichis, oblongo-fusiformibus utrinque obtusiusculis, medio constricto-1-septatis, hyalinis. 1857

Hab. ad folia emortua v. languida Citri Limonii et medicæ, in Italia bor., Austria merid., Lusitania.

40. **Sphærella sicula** Penz. Fung. Agrum. n. 27. — Peritheciis epidermide velatis amphigenis, punctiformibus, 72-90 μ. latis, in greges maculiformes, nigro-griseos, extensos densissime junctis, sphæ- 1858

roideo-depressis, poro pertusis, nigricantibus; ascis fasciculatis, aparaphysatis, clavulato-fusoideis, subsessilibus, apice subtruncatis, 24–26 ≃ 6–7, octosporis; sporidiis subdistichis, breve fusoideis, 10–11 ≃ 3,5–4, uniseptatis, non constrictis, hyalinis.

Hab. in foliis delapsis Citri Limonii cum *Læstadia socia*, Carini, Sicilia (Beltrani). — Maculæ effusæ nebulosæ a perithecii ipsis creberrimis formatæ.

41. **Sphærella arcana** Cooke Haudb. n. 2747, *Sph. maculæformis* var. Auersw. Myc. Eur. Pyr. p. 5, fig. 100. — Peritheciis minutis, subinnatis, modo maculiformi-congregatis, modo sparsis, nigris nitidisque; ascis late fusoideis; sporidiis linearibus utrinque obtusis, stipatis, uniseptatis, 4-guttulatis, hyalinis, 12–13 μ. longis. 1859

Hab. in foliis emortuis Castaneæ vescæ in Britannia, Germania et Italia. — Sec. Cooke l. c. bene distincta a *Sph. maculiformi*.

42. **Sphærella millegrana** Cooke Handb. n. 2753, Auersw. Myc. Eur. Pyr. p. 8, fig. 17 et 90. — Peritheciis hypophyllis, raro epiphyllis, nigris, opacis, epidermide velatis, dense sparsis vel gregariis, maculas griseas 2–3 mill. lat. non limitatas formantibus, globosis poro pertusis, 50–80 μ. diam.; ascis clavatis subsessilibus, octosporis 26–39 ≃ 8–10; sporidiis distichis v. submonostichis, lanceolatis, supra medium uniseptatis, constrictis, utrinque acuminatis, 14 ≃ 3–4, hyalinis. 1860

Hab. in foliis dejectis Carpini Betuli et Tiliæ parvifoliæ in Britannia et Germania.

43. **Sphærella fennica** Karst. Myc. Fenn. II, pag. 173. — Peritheciis sparsis, epidermide tectis, sphæroideis, siccis depressis, ostiolo erumpente, nudo, papilliformi, atris, circiter 150 mill. lat.; ascis subsessilibus, elongatis vel cylindraceo-subclavatis, vulgo curvulis, 70–86 ≃ 14–15 octosporis; sporidiis distichis, ovoideo-oblongatis, utrinque subacutatis, extra medium uniseptatis, ad septum leviter constrictis, hyalinis, 18–21 μ. long. (loculo superiori 12 μ. long. inferiori 9 μ. long.) 7 μ, cr. 1861

Hab. ad petiolos Tiliæ parvifoliæ vetustos, in Fennia.

44. **Sphærella sparsa** (Wallr.) Auersw. Myc. Eur. Pyr. p. 4 (p. p.), fig. 27, Cooke Handb. n. 2743, *Sphæria sparsa* Wallr. Fl. Crypt. n. 3730. — Hypophylla; peritheciis innatis plus minus dense sparsis vel subgregariis, globulosis, nigris; ascis cylindraceis 40 ≃ 8; sporidiis distichis vel monostichis, obovato-oblongis 7 ≃ 3, uniseptatis, loculo superiori crassiori. 1862

Hab. in foliis Tiliæ parvifoliæ (et Castaneæ) in Britannia, Germania, Italia et Amer. boreali.

45. **Sphærella Grossulariæ** (Fr.) Auersw. Syn. Pyr. eur, p. 11, t. 4, f. 44, *Sphæria Grossulariæ* Fr. S. M. II, 521. — Peritheciis hypophyllis, innatis, gregariis, sphæroideis, poro minuto perforatis, atris, 155 mill. lat.; ascis brevissime pedicellatis vel subsessilibus, clavatis; 55-66 ≃ 8-12; sporidiis subsenis tristichis, fusoideo-bacillaribus, leviter curvatis, uniseptatis, ad septum non constrictis, hyalinis, 26-35 ≃ 3-4. 1863

Hab. ad folia Ribis nigri et Ribis Grossulariæ vetusta in Suecia, Fennia et Germania.

46. **Sphærella assimilata** J. Kunze Fungi Sel. exsic. n. 246 (absque diagnosi). — Peritheciis hypophyllis, epidermide velatis, perexiguis, dense gregariis maculasque nubilosas formantibus, 90-108 μ. diam., poro pertusis; ascis clavulatis deorsum sensim attenuato-stipitatis 28-32 ≃ 7-8, octosporis, aparaphysatis; sporidiis subdistichis perexiguis oblongo-fusoideis v. clavulatis, 1-septatis, vix constrictis 5-6 ≃ 3-3,5, hyalinis. 1864

Hab. ad folia putrescentia Ribis alpini prope Eisleben Germaniæ.

47. **Sphærella Ribis** Fuck. Symb. myc. pag. 108. — Peritheciis gregariis sparsisve, demum subliberis, macula deficiente, punctiformibus, conicis, aterrimis, perforatis; ascis oblongo-ovatis, stipitatis, tunica crassa, 8sporis, 80 ≃ 14; sporidiis subdistichis, oblongo-ovatis, utrinque attenuatis, uniseptatis, hyalinis, 16 ≃ 4. — *Septoria Ribis* Desm. sistit, sec. Fuck., spermogonium. 1865

Hab. in pag. plerumque superiori foliorum Ribis rubri pr. Œstrich Rhenogoviæ, raro.

48. **Sphærella genuflexa** Auersw. Myc. Eur. Pyr. p. 8, fig. 91. — Peritheciis hypophyllis, nigris, epidermidi innatis, sparsis vel subgregariis, globosis, poro simplici pertusis, 150 μ. latis; ascis ample clavatis subsessilibus, 8-sporis, 60-90 ≃ 20-24; sporidiis biserialibus, elongato-cuneatis, utrinque rotundatis, uniseptatis, ad sepimentum non constrictis, sed genuflexis, hyalinis, nucleo minute granulato, 24-30 ≃ 8-9. 1866

Hab. in pag. inferiore foliorum Salicis albæ in Germania.

49. **Sphærella polaris** Karst. Fungi Spetsb. pag. 108. — Peritheciis sparsis, epiphyllis, emergentibus, sphæroideis, poro vix conspicuo perforatis, glabris, nigris, 80-150 μ. latit.; ascis subsessilibus, oblongato-ellipsoideis, 100-110 ≃ 38-40, octosporis; sporidiis disti- 1867

chis, ovoideo-oblongatis, utrinque rotundatis, uniseptatis, ad sepimentum vix constrictis, levissime flexis, nucleo minutissime granulato, 30–35 ≃ 11–18; paraphysibus nullis,

Hab. in foliis Salicis polaris aridis ad Treurenbergbay, Spitzberg. — A *Sph. genuflexa* cujus, sec. Karst, subspecies habenda, satis recedit ascis sporidiisque tertia parte crassioribus.

50. **Sphærella Capronii** Sacc. *Sph. salicicola* Cooke Handb. n. 2744, nec Rabh. — Maculiformis v. sparsa; peritheciis innatis, punctiformibus, globulosis, nigris, nitidulis; ascis cylindraceis; sporidiis monostichis v. distichis, uniseptatis, hyalinis, 15 μ. longis. 1868

Hab. in foliis Salicum, Shere Britanniæ (E. Capron). — Peritheciorum ostiolis amplis, sporidiis triplo fere majoribus a *Sph. salicicola* differt.

51. **Sphærella salicicola** (Fr.) Fuck. Symb. myc. p. 106, *Sphœria salicicola* Fr. S. M. II, 530 p. p., Rabh. in litt. ad Auersw., Sacc. Rel. myc. Lib. Ser. II, n. 169, t. XX, fig. 9. — Peritheciis epiphyllis hinc inde maculiformiter dense gregariis, epidermide velatis, globoso-depressis, poro pertusis; ascis tereti-clavulatis, brevissime stipitatis, 40–45 ≃ 5–6; sporidiis clavulatis, uniseptatis, non constrictis, hyalinis 6 ≃ 2. 1869

Hab. in pag. super. foliorum Salicis capreæ, S. nigricantis, S. triandræ in Germania, Gallia et Italia.

52. **Sphærella curvulata** Pass. Hedw. 1876, p. 106. — Amphigena, sparsa vel dense gregaria, peritheciis punctiformibus, atris; ascis ex ovata basi sursum attenuatis, 8sporis; sporidiis distichis vel inordinatis, oblongo-cuneatis, septatis, vix constrictis, loculis 1–2-guttulatis, hyalinis. 1870

Hab. ad folia dejecta Salicis albæ, vere, Parma, Italia bor.

53. **Sphærella maculosa** Sacc. *Sph. macularis* Karst. Myc. Fenn. II, p. 174 nec Fr. — Peritheciis amphigenis, sæpissime tamen hypophyllis, parenchymati innatis subiculoque filamentoso, fusco insidentibus, epidermide cinerascente tectis, dein erumpentibus, gregatim sparsis, sphæroideis, ostiolo minuto, atris, 60–75 μ. latit.; ascis sessilibus, elongatis, basin versus inflatis, 70–95 ≃ 11–14 octosporis; sporidiis in parte asci superiori monostichis, in inferiori distichis, late ovoideo-oblongatis, uniseptatis, ad septum leviter constrictis, flavescentibus vel luteolis, 14–16 ≃ 6–7. 1871

Hab. in foliis Populi tremulæ dejectis sat frequens in Fennia. — Species singularis. Maculas griseas angulosas vel suborbiculares, sæpe venis limitatas, variæ latitudinis format. — A *Sph.*

macularis peritheciis sæpius hypophyllis, ascis sporidiisque duplo majoribus certe distinguenda.

54. **Sphærella Populi** Auersw. Myc. Eur. Pyr. p. 11, fig. 93. — Peritheciis epiphyllis, epidermide innatis, sparsis, globosis, poro simplici pertusis, 140–150 μ. diam.; ascis clavatis, breve stipatis, 8-sporis, 75–100 ≃ 15–17; sporidiis elongato-cylindricis, subfusoideis, utrinque rotundatis uniseptatis dense et pluriserialiter stipatis, hyalinis, 30–35 ≃ 4–4,5, leniter curvis. 1872

Hab. in foliis emortuis Populi dilatatæ et P. nigræ in Germania, Austria et Italia. — Var. *Fuckelii (Sph. Populi* Fuck. Symb. myc. App. II, p. 20): ascis deorsum latioribus, 88 ≃ 22; sporidiis 28 ≃ 6–7; peritheciis hypophyllis. In foliis Populi nigræ, Eltville Germaniæ.

55. **Sphærella macularis** (Fr.) Auersw. Myc. Eur. Pyr. p. 9, fig. 28, Sacc. in Rev. myc. 1881, t. XX, fig. 13, *Sphæria macularis* Fr. S. M. II, 502, *Perisporium maculare* Fr. S. M. III, p. 251. — Peritheciis amphigenis, atris, parenchymati innatis, epidermidem utrinque translucentibus aut perforantibus, maculas griseas, angulosas, venis limitatas, variæ latitudinis formantibus, globosis, ostiolo minuto simplici perforatis, 60–70 μ. latis; ascis cylindricis, 8-sporis, 34–42 ≃ 4–6; sporidiis ovalibus, uni- vel biseriatis, uniseptatis, ad septimentum non constrictis, hyalinis, 7–9 ≃ 2–2,5. 1873

Hab. in pag. plerumque super. foliorum Populi tremulæ in Suecia, Germania, Gallia, Belgio et Italia.

56. **Sphærella crassa** Auersw. Myc. Eur. 7, fig. 28, Mich. I, 35. — Peritheciis sparsis majusculis, nigris; ascis ovato-clavatis, p. sporif. 65 ≃ 15–16, aparaphysatis, octosporis; sporidiis 2–3-stichis, oblongis, 18–25 ≃ 5–7, constricto-1-septatis, loculo superiore crassiore, minute vage pluriguttulatis, hyalinis. 1874

Hab. in pagina superiore foliorum Populi tremulæ in Germania (Auersw.) et P. albæ, Conegliano, Italia bor. (Spegazzini).

57. **Sphærella orbicularis** Peck 28 Rep. on the St. mus. New York. — Peritheciis minutis, innatis, epidermide tandem perforata velatis, maculas distinctas v. confluentes suborbiculares fuscas occupantibus, ascis subcylindricis; sporidiis oblongis uniseptatis, 10–13 μ. longis, chlorinis. 1875

Hab. in pagina superiore foliorum dejectorum Populi, Center et North Greenbush Amer. bor. — Maculæ illas *Venturiæ orbiculæ* imitantur: perithecia plerumque ad marginem maculæ crebriora, quam in centro.

58. **Sphærella major** Auersw. Myc. Eur. Pyr. p. 8, fig. 32. — Peritheciis hypophyllis, nigris, epidermidi innatis, sparsis, globosis, papilla elongata ornatis, 150 μ. latis; ascis e basi ventricosa attenuatis, breviter stipitatis 8-sporis, 68–72 ≃ 10–12; sporidiis obovato-oblongis, uniseptatis, ad sepimentum constrictis, in asci basi inflata bi-, in parte superiore attenuata uniserialibus, luteolis, 14 ≃ 5–6. 1876

Hab. in foliis Populi tremulæ in Germania. — An *Venturia* decalvata?

59. **Sphærella Bhauria** Cooke Some Ind. Fungi in Grev. VI, p. 118. — Gregaria, hypophylla; peritheciis minutis, punctiformibus, atro-brunneis, obtusis, poro pertusis; ascis cylindraceis; sporidiis ovalibus uniseptatis, leniter constrictis, hyalinis, 7 ≃ 3, cellulis nucleatis. 1877

Hab. in foliis Symploci spicatæ (vulgo Bhauri), subinde paginam superiorem foliorum fere totam occupans, Dinagepore Indiæ orientalis.

60. **Sphærella Wisteriæ** Cooke in Grev. VII, p. 53. — Punctiformis, sparsa; peritheciis semi-immersis, atris, minimis; ascis clavatis; sporidiis ellipticis, uniseptatis, 8 ≃ 3. 1878

Hab. in foliis Wisteriæ sinensis, Aiken Carol. Amer. bor.

61. **Sphærella verna** Sacc. et Speg, Mich. I, 379. F. it. t. 384. — Peritheciis dense et late gregariis, hypophyllis, punctiformibus, lenticularibus, 100 micr. diam., poro pertusis; ascis crasse cylindraceis, breve stipitatis, 45–50 ≃ 13, 8sporis; sporidiis oblongo-clavulatis, 22 ≃ 5, lenissime constrictis, hyalinis. 1879

Hab. in pagina inferiore, quæ cinerascit, Forsythiæ viridissimæ, Conegliano, Ital. bor. (Spegazzini). — Subaffinis *Sphærellæ crassæ* Auersw.

62. **Sphærella vagabunda** (Desm.) Fuck. Symb. myc. p. 106 *Sphæria* (foliicola) *vagabunda*, Desm. 13 Not. 1846, p. 81. — Maculis amphigenis, minutis, indeterminatis, olivaceis, vel griseo-fuscis; peritheciis minutissimis, innato-prominulis, gregariis, nigris, poro subtili apertis, nucleo albo farctis; ascis tenerrimis linearibus; sporidiis minutissimis, oblongis, hyalinis, 5-6 μ. long., plasmate bipartito. 1880

Hab. in foliis languescentibus Clematidis (et Cratægi Oxyacanthæ?) in Gallia et Germania.

63. **Sphærella Pittospori** Cooke Grev. VII. p. 53. — Gregaria; peritheciis atris, semi-immersis, in maculas angulatas, veni-limitatas congestis; ascis clavato-cylindricis; sporidiis ellipticis, uniseptatis, utrinque rotundatis, leniter constrictis, 10 ≃ 4. 1881

Hab. in foliis Pittospori, Aiken Carol. Amer. bor.

64. **Sphærella Pseudacaciæ** Auersw. Myc. Eur. Pyr. p. 8, fig. 92. — Peritheciis nigris, epidermide tectis eamque ostiolo brevissime conico perforantibus, sparsis, vel subgregariis, globosis, 100 μ. latis; ascis e basi ovata apicem versus attenuatis, subsessilibus, 8-sporis, 70–75 ≃ 18; sporidiis 2–3-serialibus, obovato-oblongis, utrinque rotundatis, uniseptatis, ad sepimentum constrictis, hyalinis, loculo utroque guttulis 2–3 minutis ornato, 24 ≃ 10. 1882

Hab. in foliorum petiolis Robiniæ Pseudacaciæ in Germania.

65. **Sphærella petiolicola** (Desm.) Auersw. Syn. Pyr. eur. p. 8, t. 3, f. 38. Sacc, Myc. Ven. t. IX, fig. 16–28. *Sphæria petiolicola* Desm. 17. Not. 1849, p. 28. — Peritheciis sparsis vel subgregariis, primitus epidermide tectis, dein eam perforantibus vel sublevantibus, sphæroideis, poro pertusis, atris, latit. circiter 0,1 mill.; ascis subsessilibus, cylindraceo-clavatis, 40 ≃ 6, octosporis; sporidiis distichis, subovoideo-elongatis, uniseptatis, ad septum leniter constrictis, hyalinis, 6–8 ≃ 1,5–2 (in forma Robiniæ 10 ≃ 3). 1883

Hab. in petiolis Fraxini excelsioris et Robiniæ Pseudacaciæ emortuis in Gallia, Germania, Italia et Fennia.

66. **Sphærella Psammisiæ** Cooke Grev. IX. 1881, p. 99. — Epiphylla; maculis orbicularibus hinc inde confluentibus, magnis, pallidis, rubro-cinctis; peritheciis paucis, subprominentibus, atris; ascis clavatis, sessilibus; sporidiis biseriatis, ellipticis, inæqualiter uniseptatis, hyalinis, 15 ≃ 5. 1884

Hab. in foliis Psammisiæ penduliflorae, Caracas Venezualæ (Doct. Ernst).

67. **Sphærella Œdema** (Fr.) Fuck. Symb. p. 104. Niessl. Beitr. p. 17, t. III, fig. 14. *Sphæria Œdema* Fr. in Duby Bot. Gall. II, 696. — Peritheciis amphigenis, gregariis, dense confertis seu cæspitosis, sub epidermide nidulantibus, demum erumpentibus, globosis, papillatis, 90–110 μ. diam., atris; ascis fasciculatis, oblongo-clavatis apice rotundatis sessilibus 8sporis 52–58 ≃ 10–11; sporidiis farctis seu subdistichis, fusiformi-oblongis utrinque rotundatis vel parum acutiusculis, rectis curvatisve, uniseptatis, ad sepimentum parum constrictis, dilutissime virescentibus v. fere hyalinis, 20–22 ≃ 3–5, paraphysis nullis. 1885

Hab. in foliis languescentibus Ulmi campestris et effusæ pr. Brünn, Austria, Œstrich, Germania, nec non in Vogesis.

68. **Sphærella nitidula** (Lév.) Berk. Fungi Braz. n. 420. *Sphæria* (epi- 1886

phylla) *nitidula* Lév. Ann. Scienc. nat. 3, 1845, p. 54. — Epiphylla, gregaria vel sparsa; peritheciis innatis hemisphæricis lævibus, nigris, nitidis; ostiolis prominulis pertusis; ascis ovoideo-inflatis, octosporis; sporidiis inordinatis, ellipticis, uniseptatis, guttulatis, hyalinis.

Hab. in Brasilia ad folia Melastomatum (Guillemin).

69. **Sphærella Myrsines** Kalch. et Cooke Grev. IX, 1880, p. 30. — 1887
Hypophylla, sparsa; peritheciis membranaceis, brunneis, poro pertusis 0,1–0,2 mill. diam., applanatis; ascis anguste clavatis; sporidiis lanceolatis, demum uniseptatis, hyalinis, nec centro constrictis, 14 ≃ 3.

Hab. in foliis putrescentibus Myrsines africanæ in Africa australi.

70. **Sphærella Myricariæ** (Fuck.) Sacc. *Sphæria Myricariæ* Fuck. 1888
Symb. Myc. App. II, p. 22. — Peritheciis plerumque in foliorum marcescentium aridorumve pagina inferiori, gregariis, pro ratione majusculis, semiimmersis et basi globosa a foliorum substantia decolorata elevata cinctis, parte libera late conica, aterrima, demum perforatis; ascis tenuiter stipitatis, tunica crassa, oblongis, sæpe curvatis, 8sporis, 80 ≃ 12; sporidiis distichis, ovato-oblongis, paullulum curvatis, utrinque obtusis, uniseptatis, ad septum constrictis, loculis 1–2 guttulis majusculis, hyalinis, 20 ≃ 6.

Hab. in foliis adhuc pendulis, siccis Myricariæ germanicæ pr. Ragaz Helvetiæ.

71. **Sphærella Molleriana** Thuem. Contr. Myc. Lusit. n. 537. — Pe- 1889
ritheciis amphigenis sed plerumque hypophyllis, dense gregariis, punctiformibus, conico-prominulis, semiimmersis, nitido-atris, minutis in macula irregulari, arescendo sordide fuscidula, zona obscuriore anguste cincta; ascis fasciculatis, late clavatis, utrinque angustatis, hyalinis, 30–40 ≃ 12–15, subsessilibus, octosporis; sporidiis fusoideis, utrinque acutatis, medio septatis, hyalinis, di-tristichis, 7–9 ≃ 2,5.

Hab. ad folia viva Eucalypti Globuli prope Coimbra (Moller).

72. **Sphærella mediterranea** Sacc. Mich. I, p. 35. — Maculis vagis, 1890
arescendo candidis brunneo-cinctis; peritheciis sparsis epidermide velatis dein erumpentibus e globoso-lenticularibus, punctiformibus, $^1/_6$–$^1/_8$ mill. diam., basi hyphulis vestitis, vertice obtusis, pertusis, contextu laxe parenchymatico fuligineo; ascis cylindraceis apice rotundatis, brevissime stipitatis, 90–100 ≃ 12–14, aparaphysatis, octo-

sporis; sporidiis distichis fusoideis, rectis curvulisve, 22–25 ≃ 7, 1-septatis, non constrictis, sæpius 4-guttulatis, hyalinis.

Hab. in pagina superiore foliorum languescentium Nerii Oleandri, Sermide, Mantova, Ital. bor. (A. Magnaguti-Rondinini).

73. **Sphærella Laureolæ** (Desm.) Auersw. Myc. Eur. p. 9, fig. 45. — Peritheciis amphigenis, nigris, maculæ folii subrotundæ, pellucidæ, luteolæ, limitatæ, 2–10 mill. latæ, numerosissime insidentibus, subglobosis, poro simplici pertusis, 120 μ. latis; ascis elongato-oblongis vel e basi ampliata attenuatis, brevissime stipitatis, 8-sporis, 44 ≃ 8; sporidiis biseriatis, obovato-oblongis, utrinque obtusis, uniseptatis, hyalinis, 12–14 ≃ 3. 1891

Hab. in foliis adhuc viridibus Daphnes Laureolæ in Gallia et Germania. — Sec. Auerswald l. c. huc spectat *Phyllosticta Laureolæ* Desm.

74. **Sphærella grumiformis** Karst. Myc. Fenn. II. p. 173. — Peritheciis epiphyllis, sparsis, prominulis, difformibus, plerumque rotundatis, rugulosis, subastomis, atris, latit. 200–250 μ.; ascis breviter pedicellatis, elongatis, 55–60 ≃ 10–13 octosporis; sporidiis distichis, ovoideo-oblongatis, medio uniseptatis, ad septum haud vel vix constrictis, chlorino-hyalinis, tandem dilutissime fuscescentibus, 15–21 ≃ 4,5–6. 1892

Hab. in foliis Arctostaphyli alpini emortuis prope Kitofka-guba Lapponiæ rossicæ.

75. **Sphærella Gaultheriæ** C. et P. New Jersey Fungi in Grev. VII, p. 42. — Epiphylla; maculis orbicularibus, albidis, purpureo-cinctis; peritheciis punctiformibus, circinatis; ascis clavatis; sporidiis lanceolatis, biseriatis, uniseptatis, 15–18 ≃ 4. 1893

Hab. in foliis Gaultheriæ, New Jersey Amer. bor.

76. **Sphærella Dendromeconis** C. et Harkn. Grevill. IX, 1880, p. 9. — Minima, sparsa, epidermide tecta; peritheciis, membranaceis, brunneis; ascis octosporis; sporidiis biseriatis, ellipticis, hyalinis uniseptatis, cellula inferiore tenuiore. 1894

Hab. in caule Dendromeconis rigidi in California, America boreali (Harkness).

77. **Sphærella Clymenia** Sacc. M. V. n. 908. Mich. I. p. 35. — Maculis amphigenis subrotundis ochraceis v. subgriseis, fusco-cinctis; peritheciis remote sparsis e globoso lenticularibus, diam. 70–80 μ. punctiformibus, ostiolo impresso pertusis; ascis clavulatis, 40–50 ≃ 10, aparaphysatis, octosporis; sporidiis distichis oblongo-clavu- 1895

latis, 14–16 ≃ 3½–4, bilocularibus, loculo sup. leniter crassiore, ad septum subconstrictis, 4-guttulatis, hyalinis.

Hab. in foliis Loniceræ Caprifolii, socio spermogonio: *Phyllosticta vulgari* f. *Loniceræ* Desm. (sperm. 6–7 ≃ 2,5, 2-guttulatis, hyalinis) in sylva Montello Italiæ borealis et in Gallia.

78. **Sphærella collina** Sacc. et Speg. Michel. I, 379, F. it. t. 387. — 1896
Peritheciis in foliis totis dealbatis gregariis amphigenis, sed plerumque epiphyllis, innato-erumpentibus, lentiformibus, 200 μ. diam., pertusis, contextu membranaceo exquisite parenchymatico; ascis cylindraceo-clavatis 45–50 ≃ 10–11, brevissime noduloso-stipitatis, aparaphysatis, octosporis; sporidiis distichis, oblongis, 13 ≃ 5, constricto-1-septatis, loculo superiore crassiore, hyalinis.

Hab. in foliis emortuis Loniceræ Xylostei, Colfosco, Treviso Italiæ borealis. — A *Sph. Clymenia* Sacc. longe diversa.

79. **Sphærella colorata** Peck. 29 Rep. on the St. Mus. New-York t. 1897
II, fig. 15–17. — Maculis orbicularibus, minutis, sparsis v. rarius confluentibus, rubro-fuscis, late marginatis; peritheciis minutis, nigris, epiphyllis; ascis cylindraceis; sporidiis subteretibus, v. fusoideis, uniseptatis, hyalinis, 15–18 μ. longis.

Hab. in foliis viventibus Kalmiæ angustifoliæ, Center, America boreali. — Maculæ in pag. sup. distinctius marginatæ, quam in inferiori, subinde cinerascentes.

80. **Sphærella cinerascens** Fuck. Symb. mycol. p. 103. — Peritheciis 1898
gregariis, numerosissimis, emersis, globosis, atris, *Sph. punctiformis* magnitudine, ostiolis minimis, papillatis; ascis fasciculatis, oblongis, curvatis, 8sporis, 36 ≃ 12; sporidiis ovato-oblongis, uniseptatis, utrinque obtusis, multiguttulatis, hyalinis, 9 ≃ 4. Sec. Fuck. l. c. status conidicus est *Cercospora Aricæ* Fuck.

Hab. in pagina inferiore foliorum putrescentium Sorbi Ariæ, sæpius maculas latas efficiens, Hallgarten Germaniæ.

81. **Sphærella cerasina** Cooke Grev. VII, p. 53. — Hypophylla; pe- 1899
ritheciis atris, semi-immersis, in maculis suborbicularibus congestis; ascis cylindraceis; sporidiis anguste ellipticis, uniseptatis, 10 ≃ 2,5.

Hab. in foliis Pruni Lauro-cerasi in Carolina Am. bor.

82. **Sphærella Ceratoniæ** Pass. Funghi Parm. III. p. 28. — Perithe- 1900
ciis hypophyllis, punctiformibus atris; ascis clavatis 8-sporis; sporidiis distichis navicularibus medio septatis et arcte constrictis, ioculis binucleolatis, hyalinis.

Hab. in foliis Ceratoniæ Siliquæ, Licata, Sicilæ.

83. **Sphærella Vaccinii** Cooke in Journ. of. Bot. 1866, Aug., p. 249, 1901

t. 50, f. 11 et Brit. Fung. II, p. 917. *Sphæria maculæformis* Fr. Syst. myc. II, p. 524, pr. p. *Sphærella Myrtilli* Auersw. Myc. Eur. Pyr. p. 10, t. 4. f. 46. — Peritheciis hypophyllis, innatis, dense gregariis, maculas griseas, angulosas, venulis limitatas formantibus, subsphæroideis, atris nitidulis, poro simplici pertusis, latit. 80–100 μ. ascis sessilibus, cylindraceo-clavatis vel fusoideo-bacillaribus, 40–50 ≃ 7 octosporis; sporidiis distichis, fusoideo-bacillaribus, leviter curvulis vel subrectis, uniseptatis. ad septum neutiquam constrictis, hyalinis, 12–18 ≃ 1,5–2.

Hab. in foliis Vaccinii Myrtilli, V. arborei, V. corymbosi in Britannia, Suecia, Germania, et Amer. boreali.

84. **Sphærella myrtillina** Pass. Micr. ital. diagn. n. 3. — Peritheciis, 1902
sparsis vel laxe gregariis minutis pustulæformibus, epidermide nigrificata tectis; ascis cylindrico-fusiformibus rectis, 8-sporis; sporidiis subdistichis fusiformibus rectis vel curvatis sæpius integris 2-4-guttatis, interdum (maturis) tenuissime medio septatis, hyalinis, 18–20 ≃ 3–3½.

Hab. ad ramulos aridos Vaccinii Myrtilli in Apennino Parmensi (Lago santo). — An *Læstadia?* A *Sphærella Vaccinii* Cooke plane diversa.

85. **Sphærella brachytheca** Cooke Grev. VII, p. 88 (nec Grev. IX. p. 8, 1903
Cfr. *Sph. Harknessii*). — Maculis orbicularibus, albidis, nigro-marginatis; peritheciis punctiformibus in maculæ centro aggregatis; ascis clavatis v. ovoideis; sporidiis subfusoideis rectis curvulisve, hyalinis, 14–15 ≃ 3.

Hab. in pagina superiore foliorum viventium Vaccinii Vitis idææ, Forres Britanniæ (Rev. J. Keith). — Subsimilis *Sphærellæ Gaultheriæ*, quæ sporidiis majoribus pollet.

86. **Sphærella Bumeliæ** Cooke Grev. VII, p. 54. — Epiphylla; peri- 1904
theciis atris, semi-immersis, in maculis suborbicularibus, nigrificatis congestis: ascis clavato-cylindraceis; sporidiis ellipticis, uniseptatis 12 ≃ 4.

Hab. in foliis Bumeliæ, Darien Carolinæ Amer. bor.

87. **Sphærella convexula** (Schw.) Thüm. M. U. n. 1149. *Sphæria con-* 1905
vexula Schw. Syn. Amer. bor. n. 1788, Grevill. IV. 154. — Totum folium sparse occupans, innata, minuta, rugulosa, tamen nitidula, atra, subastoma, valde convexo-elevata, non collabescens; nucleo ascigero (imperfecto observato).

Hab. in foliis Caryæ tomentosæ Bethlehem et Aiken Amer.

bor. (Schwein et Ravenel). — N. 1149 M. U. præbet specimina prorsus immatura.

88. **Sphærella Evonymi** (Kunze?) Auersw. Myc. Eur. p. 10, fig. 40. 1906
Sphæria Evonymi Kunze in Fr. S. M. II, p. 439 p. p. — Peritheciis hypophyllis, nigris, epidermidi innatis, dense sparsis vel gregariis, maculas griseas (1–2 μ. mentientes) angulosis, venulis plus minus limitatas formantibus, globosis, poro simplici pertusis, 120 μ. fere latis; ascis clavatis, brevissime stipitatis, 8-sporis, 40 ≃ 6; sporidiis biserialibus, fusiformibus, subfalcatis, utrinque obtusis, 4-nucleolatis aut demum uniseptatis, ad sepimentum non constrictis, hyalinis, 14 ≃ 2.

Hab. in pagina inferiore Evonymi europæi in Suecia, Gallia, Belgio et Germania.

89. **Sphærella exutans** Cooke Fungi of Texas 144. — Maculis minu- 1907
tis, atro-brunneis; peritheciis paucis, immersis, demum epidermidem operculatim excutientibus; ascis clavato-cylindraceis; sporidiis elongato-ellipticis, inæqualiter uniseptatis, hyalinis, 22 ≃ 4.

Hab. in pag. sup. foliorum Perseæ, Houston, Texas, Amer. bor. — Foliorum epidermis supra quodque perithecium operculatim circumscinditur.

90. **Sphærella elatior** Sacc. et Speg. Michel. I, 379, F. ital. t. 386. — 1908
Peritheciis sparsis, hypophyllis, globoso-conoideis, subprominulis, 1/5 mill. diam.; contextu parenchymatico densiusculo, fuligineo; ascis obclavatis, brevissime stipitatis, 80–90 ≃ 23, apice tunica integra obtusatis, aparaphysatis, octosporis; sporidiis distichis et parte inferiore subtristichis, oblongis subclavulatisque, 25–30 ≃ 8–9, rectis curvulisve, 1-septatis, vix constrictis, 4-guttulatis, dein 2-nucleatis, hyalinis.

Hab. in pagina inferiore foliorum putrescentium Liriodendri Tulipiferæ, Conegliano, vere 1877. — Ob sporidia et perithecia majuscula ad *Sphærellam Primulæ* Rehm Ascom. n. 295 accedit, sed ceterum differt.

91. **Sphærella Duchartrei** (Crié sub Dep.) Sacc., Crié sur les Dep. p. 1909
41, t. VI, fig. 6. — Maculis indeterminatis zona nigra cinctis; peritheciis epiphyllis, nigris; ascis stipitatis elongatis obtusis; sporidiis lanceolatis, acutiusculis, 1-septatis, leniter constrictis, 10–11 ≃ 4, dilute cœrulescentibus.

Hab. in foliis exsiccatis Vincæ minoris in Gallia, Sillé-le-Guillaume, Conlie, Meudon, hieme, sociis spermogoniis (*Septoria:* spermatiis 25–40 μ. long.) et pycnidibus (*Phoma* etc.),

92. **Sphærella Coneglanensis** Speg. Michel. I. 455, Fungi ital. t. 626. 1910
— Peritheciis primo subepidermicis, dein erumpentibus atque subsuperficialibus, 120–150 μ. diam., laxe gregariis; contextu inferne subcarbonaceo, superne parenchymatico-polyedrico, fuligineo-atro; ascis cylindraceis vel cylindraceo-clavatis, antice crassiuscule tunicatis, 40–45 ≃ 5, octosporis, aparaphysatis; sporidiis didymis, loculo superiore majore, hyalinis, 7–8 ≃ $2^1/_3$–3.

Hab. ad folia emortua dejecta Calycanthi floridi, Conegliano Italiæ borealis.

93. **Sphærella Berberidis** Auersw. Myc. Eur. Pyr. p. 3, fig. 41. — 1911
Peritheciis hypophyllis, nigris, epidermide innatis, laxe gregariis, gregibus venulis plus minusve limitatis, globosis, 120 μ. diam., poro simplici pertusis; ascis clavatis substipitatis, octosporis, 45–65 ≃ 8–9, aparaphysatis; sporidiis 2–3-stichis, fusoideis, obtusiusculis, rectis curvulisve, uniseptatis, 24 ≃ 2,5–3, hyalinis.

Hab. in foliis Berberidis vulgaris in Germania, Belgio, Italia et Austria. — Sporidia diu continua manent.

94. **Sphærella Auerswaldii** Fleisch. in litt. Auersw. Syn. Pyr. eur. 1912
p. 11, t. 7, f. 95. — Peritheciis hypophyllis, epidermidi innatis, laxe gregariis, subsphæroideis, ore simplici pertusis, atris, 100–120 μ. latit.; ascis clavatis, brevissime pedicellatis, 48–55 ≃ 10 octosporis; sporidiis subquadriserialiter stipatis, fusoideis, utrinque obtusatis, demum uniseptatis, ad sepimentum neutiquam constrictis, hyalinis, utrinque nucleolis minutis 2–3 ornatis, 27–30 ≃ 4.

Hab. in foliis Corni sanguineæ et C. albæ putridis in Germania et Fennia.

95. **Sphærella conglomerata** (Wallr.) Auersw. Myc. Eur. Pyr. p. 5, 1913
fig. 88, *Sphæria conglomerata* Wallr. Fl. Crypt. p. 814, *Stigmatea maculiformis* Fuck. Symb. p. 95. — Hypophylla, nigra, innata, dense conglomerata et confluens; maculis gregariis minutis; ascis ovato-oblongis, sessilibus, octosporis, 30–40 ≃ 12–14; sporidiis obovato-oblongis, uniseptatis, leniter constrictis, hyalinis, 12 ≃ 4.

Hab. in foliis emortuis Alni glutinosæ in Germania, Britannia et Belgio. — Formæ in foliis Cytisi Laburni et Cercidis Siliquastri citatæ in Kickx Fl. I, 356, an vere huc spectent, nescio.

96. **Sphærella Alni** (Fuck.) Sacc. Mich. I, 245, *Stigmatea Alni* Fuck. 1914
Symb. myc. 97, *Perisporium alneum* Fr. S. M. III, 250 p. p.?
— Maculis foliorum epiphyllis, subcircularibus, dilute fuligineis;

peritheciis superficialibus, immo facile secedentibus (an ab initio velatis?), globulosis, pertusis, contextu tenui, laxiuscule parenchymatico, fuligineo, basi hyphulis brevibus fuligineis cinctis; ascis subfusoideis v. obclavatis, basi breve attenuatis, 50–60 ≃ 12–15, aparaphysatis, 8sporis; sporidiis distichis 15–16 ≃ 7, obovatis, constricto-1-septatis, loculo superiore crassiore, inferiore acutiore, 4-guttulatis e hyalino dilute luteolis.

Hab. in foliis adhuc vivis Alni glutinosæ in Suecia, Germania et Italia.

97. **Sphærella Alni viridis** De Not. Recl. in Comm. II, pag. 487. — 1915
Hypophylla, epidermide tecta, minutissima, laxe gregaria; peritheciis e stromate dematiaceo, entophlœodeo, rotundatis, vertice obtusissime conoideis, osculo minuto hiantibus, aterrimis, carbonaceis, fragilibus; ascis coacervatis, crasse clavulatis, octosporis; paraphysibus nullis; sporidiis tereti-fusoideis, utroque apice obtusiusculis, curvulis, bilocularibus, hyalinis.

Hab. in foliis dejectis Alni viridis, Val Vogna prope Riva Italiæ borealis (Carestia).

98. **Sphærella Araliæ** C. et Harkn. Grevill. IX, 1880, p. 9. — Peri- 1916
theciis gregariis, brunneis, membranaceis, epidermide tectis, in maculas orbiculares congestis; ascis cylindraceis; sporidiis ellipticis, hyalinis, uniseptatis, 10 ≃ 4.

Hab. in caulibus Araliæ californicæ in California Americæ borealis.

99. **Sphærella Acaciæ** C. et Harkn. Grevill. IX, 1880, p. 9. — Epi- 1917
phylla, subgregaria; peritheciis membranaceis, epidermide tectis; ascis clavatis; sporidiis biseriatis, hyalinis, sublanceolatis, medio constrictis, uniseptatis, binucleatis, 25 ≃ 7.

Hab. in foliis Acaciæ in California Amer. bor. — Sporidia an tandem triseptata fiant dubium videtur.

100. **Sphærella annulata** Cooke Rav. Fung. Amer. in Grev. VI, p. 146. 1918
Sparsa, immersa; peritheciis depressis, atris, subannulatis; ascis clavatis; sporidiis ellipticis, demum uniseptatis, 8 ≃ 3.

Hab. in pag. sup. foliorum emortuorum Magnoliæ, Aiken, Carolina inf. Amer. bor.

101. **Sphærella glauca** Cooke Hedw. 1878, p. 39. — Epiphylla; ma- 1919
culis pallidis, suborbicularibus, roseo-cinctis; peritheciis semi-immersis, subglobosis, brunneis; ascis clavatis; sporidiis breviter lanceolatis, uniseptatis, hyalinis, 12–14 ≃ 4.

Hab. in foliis Magnoliæ glaucæ, Aiken, in Carolina inferiore Americæ borealis.

102. **Sphærella Cleidii** (B. et Br.) Sacc. *Sphæria* (Foliicolæ) *Cleidionii*, B et Br. Fungi of Ceyl. n. 1119. — Peritheciis gregariis, immersis, minutis, e macula fusca oriundis; ascis clavatis; sporidiis oblongis uniseptatis, 15 μ. longis. 1920

Hab. in foliis Cleidii javanici, in Ceylon. — Epidermidem tenuiter elevat.

103. **Sphærella atra** (Lév.) Sacc. *Sphæria* (conferta) *atra* Lév. ann. Scienc. nat. 3, 1845, p. 50. — Gregaria vel confluens; peritheciis globosis, intus albis, stromate effuso nigro maculæformi inæquabili obtectis, ostiolis obsoletis; nucleo albo ascigero; sporidiis ovato-oblongis, uniseptatis, hyalinis. 1921

Hab. ad folia cujusdam Grevilleæ in Nova Hollandia (Herb. Mus. Par.).

104. **Sphærella Cassinopsidis** Kalch. et Cooke. Grev. IX, 1880, p. 31. — Epiphylla; maculis pallidis, purpureo-cinctis, orbicularibus; peritheciis atris, centro gregariis, minimis; ascis clavatis, 25 ≃ 5; sporidiis linearibus, rectis, hyalinis, 6 μ. long. 1922

Hab. in foliis vivis Cassinopsidis capensis in Africa austr. — Sporidia probab. nondum perfecte matura, hinc septum non conspicuum.

105. **Sphærella coffeicola** Cooke Grevill. IX, 1880, p. 11. — Maculis pallidis, subrotundis, margine brunneo, $^1/_2$–1 cent. lat.; peritheciis paucis sparsis, immersis, atro-fuscis, minimis; ascis clavatis; sporidiis fusoideis, arcte constrictis, uniseptatis, binucleatis, hyalinis, 2,5 ≃ 4,5. 1923

Hab. in foliis Coffeæ arabicæ, Venezuela (Ernst). — Perithecia vix 2–3 in quaque macula.

†† *Clado-carpogenæ.*

106. **Sphærella melanophora** Speg. Nova Add. n. 67 et Mich. II, 247. — Maculis latiusculis, 1–10 mill. diam., primo subcircularibus, dein confluendo amorphis, indeterminatis, atro-cinereis; peritheciis minutissimis, 60–80 μ. diam., globosis, primo subepidermicis, dein cute lacerata semiexertis, contextu solidiusculo, parenchymatico-membranaceo; ascis clavato-saccatis, brevissime pedicellatis, subincurvis, apice crassiuscule tunicatis, ac rotundato-subtruncatis, octosporis 30–50 ≃ 7–9, aparaphysatis?; sporidiis distichis, hyalinis, el- 1924

lipticis, medio constricto-uniseptatis, crassiuscule tunicatis, 4-guttulatis, utrinque acutiuscule rotundatis, 8 ≃ 4.

Hab. in cortice ramulorum juniorum Quercus pseudorubræ prope Conegliano Italiæ borealis. — An *Didymella?*

107. **Sphærella fumaginea** Catt. Arch. Critt. II, 113, t. VIII, fig. 4–7. 1925
— Peritheciis atris globosis, plus minus dense sparsis, 40–60 μ. latis; ascis clavatis, sessilibus, 8sporis, 15–20 μ. longis; sporidiis biserialibus, obovato-clavatis, uniseptatis, ad sepimentum constrictis, loculo superiore crassiore, hyalinis, 5–6 ≃ 2.

Hab. in ramis et sarmentis Vitis viniferæ, Firenze Italiæ, socio *Cladosporio fasciculato,* quod sec. Cattaneo est status ejusdem conodicus.

108. **Sphærella Cytisi sagittalis** Auersw. Myc. Eur. p. 10, fig. 43. — 1926
Peritheciis amphigenis, nigris, epidermide tectis, sparsis, numerosis, depresso-globulosis, imo lentiformibus, poro simplici pertusis, 280–300 μ. latis; ascis clavato-oblongis, sessilibus, 8-sporis, 106 ≃ 16; sporidiis biserialiter stipatis, oblongo-fusiformibus, utrinque obtusatis, leviter curvatis, 4-nucleolatis, demum uniseptatis, ad sepimentum leviter constrictis, subhyalinis, 25–28 ≃ 5–6.

Hab. in ramulis alatis Cytisi sagittalis in Styria (Niessl). — Sec. Niessl eadem sit ac *Anthostomella Cytisi* (Fuck.) Sacc. n. 1079, quod ex icone Auersw. l. c. abhorret.

109. **Sphærella inflata** Penz. Fung. agrum n. 26. — Peritheciis ra- 1927
mulicolis, laxiuscule gregariis, epidermide velatis, globoso-depressis, glabris, nigris, 200 μ. latis, ostiolo impresso; ascis crasse obovatis, rotundatis, deorsum brevissime angustatis, 32–36 ≃ 14–18, aparaphysatis, octosporis; sporidiis tristichis, stipatis, oblongo-obovatis, 8–9 ≃ 4–4,5, 1-septatis, non constrictis, hyalinis.

Hab. in ramulis vivis Citri Aurantii in Horto Agrario, Padova Italiæ borealis (Penzig).

110. **Sphærella inconspicua** Schröt. Nord. Pilze p. 12. — Peritheciis 1928
sphæroideis, parum prominulis nigro-rufescentibus, 60–90 μ. diam.; ascis cylindraceo-ellipticis, 40–50 ≃ 13–16; sporidiis distichis, ovato-clavulatis, 16–19 ≃ 5–5,5, medio uniseptatis, loculo sup. crassiore, infero deorsum attenuato, hyalinis.

Hab. in pedunculis fructuum Andromedæ tetragonæ in Lapponia Sueciæ (Wichura).

111. **Sphærella Leguminis Cytisi** (Desm.) Ces. De Not. Schema Sf. p. 1929
237, *Sphæria leguminis Cytisi* Desm. X. Not. p. 24. — Peritheciis minutis, dense sparsis, epidermide tectis, nigro-fuscis, globoso-

depressis, dein planis, intus albidis, ostiolis superficialibus punctiformibus; ascis.....; sporidiis ellipticis, 1-septatis, hyalinis, 12-14 ≃ 4.

Hab. in leguminibus Cytisi Laburni in Gallia et Belgio. — Sec. Léveillé hæc species *Diplodiam* refert. An?

b) Herbicolæ.

† *Foliicolæ.*

112. **Sphærella Pulsatillæ** (Lasch) Auersw. Myc. Eur. p. 12, fig. 52. 1930
— Peritheciis amphigenis, nigris, epidermidi innatis, dense sparsis, globulosis, poro simplici pertusis, 80–120 μ. latis; ascis cylindrico-clavatis, breviter stipitatis, 8-sporis, 55–60 ≃ 8–10; sporidiis biserialibus, elongato-oblongis, utrinque obtusis, uniseptatis, loculo superiori subcrassiori, hyalinis, 14–15 ≃ 3.

Hab. in foliis Pulsatillæ pratensis in Moravia (Niessl), Germania (Fuck.), Sibiria (Thuem). — Var. *minor:* ascis cylindraceis 34 ≃ 7; sporidiis æqualiter didymis 8-9 ≃ 2. In Rhenogovia.

113. **Sphærella Lachesis** Sacc. Fungi Ven. Ser. II, p. 302. — Ma- 1931
culis nullis, peritheciis hypophyllis hinc inde gregariis, punctiformibus, epidermide subvelatis, globoso-lenticularibus, 100 micr. d., ostiolo impresso pertusis, hyphis tenuibus, brevibus basi cinctis; ascis oblongo-fusoideis, 55 ≃ 10, 8sporis; sporidiis distichis oblongo-cylindraceis, utrinque rotundatis, 17 ≃ 5, 1-septatis, non constrictis, 4-guttulatis, hyalinis.

Hab. in foliis exsiccatis Hellebori viridis, Selva, Conegliano et Vittorio Italiæ borealis.

114. **Sphærella Hermione** Sacc. Fungi Ven. Ser. II, 301. — Perithe- 1932
ciis in maculis candidis, nitidis, atro-marginatis, plerumque epiphyllis paucis, lentiformibus, 80 μ. diam., ostiolo impresso poro pertusis, hyphulis parcissimis basi cinctis; contextu membranaceo, distincte parenchymatico, fuligineo; ascis cylindraceo-clavatis, 40 ≃ 6, basi vix attenuatis, 8sporis; sporidiis oblique 1stichis v. subdistichis, oblongis, didymis, 10–11 ≃ 3, loculo inferiore paulo minore, eguttulatis, hyalinis. — Status spermogonicus *Phyllosticlam helleborellam* Sacc. sistit.

Hab. in foliis Hellebori viridis languentibus, Covolo, Treviso, Italia bor. — Cum *Sphærella Lachesi* Sacc., ne comparanda quidem.

115. **Sphærella Epimedii** Sacc. — Peritheciis innato-prominulis hinc 1933
inde maculiformiter dense gregariis, punctiformibus, poro pertusis,

nigris; ascis teretiusculis deorsum vix attenuatis, 40 ≃ 7-8, fasciculatis, aparaphysatis, octosporis; sporidiis subdistichis inæqualiter didymis, 10-13 ≃ 4, loculo superiore crassiore et obtusiore, hyalinis.

Hab. in pag. plerumque superiori foliorum emortuorum Epimedii alpini, Conegliano, Montello Italiæ borealis. — Perithecorum greges maculas angulosas 1-2 mill. diam. sistunt.

116. **Sphærella Adonis** Sacc. Mich. I, 122. — Peritheciis laxe gregariis, punctiformibus, globulosis, papillulatis, 80-100 μ. diam., innato-erumpentibus; contextu distincte parenchymatico, solidiusculo, fuligineo; ascis cylindraceo-fusoideis, 80-90 ≃ 15, breve crasse stipitatis, aparaphysatis, octosporis, apice, tunica integra, rotundatis; sporidiis distichis elongato-fusoideis, 28-30 ≃ $4^1/_2$-5, rectis curvulisve, utrinque obtuse attenuatis, 1-septatis, non constrictis, hyalinis. 1934

Hab. in pagina inferiore et parcius in superiore foliorum Adonidis vernalis in Marchia Brandenburg (O. Reinhardt in herb. P. Magnus). — Affinis, quoad sporidia, *Sphærellæ Populi* Auersw.

117. **Sphærella umbrosa** Sacc. Mich. I, 378, Fungi ital. t. 378. — Maculis in foliis arescendo candicantibus, vagis; peritheciis paucis epiphyllis, punctiformibus, lenticularibus, 100 micr. d., poro pertusis; contextu laxe parenchymatico, ochraceo; ascis cylindraceo-clavatis, 40 ≃ 10, breve stipitatis, apice rotundatis, octosporis, aparaphysatis; sporidiis distichis, oblongo-fusoideis, rectis, 14-15 ≃ 4, constricto-1-septatis, 2-nucleatis, hyalinis. 1935

Hab. in foliis nondum emortuis Galeopsidis versicoloris prope Treviso Italiæ bor.; sociis spermogoniis *Phyllostictam Galeopsidis* Sacc. (Mich. II, 150) sistentibus.

118. **Sphærella Pedicularis** Karst. Fungi Spetsb. n. 53. — Peritheciis sparsis vel gregariis, primitus epidermidi innatis, dein protuberantibus, sphæroideis, vertice subconoideo-attenuatis, glabris, atris, 150 μ. latit.; ascis subsessilibus, elongatis, 30-35 ≃ 7-8, octosporis; sporidiis distichis, fusoideo- vel aciculari-elongatis, rectis vel leviter curvulis, guttulatis vel uniseptatis, hyalinis vel sub-luteolo-hyalinis, 12-18 ≃ 2,5-8; paraphysibus nullis. 1936

Hab. in foliis Pedicularis hirsutæ emortuis ad Green Harbour, Spitzberg.

119. **Sphærella Impatientis** Peck et Clinton, 30 Rep. on the St. Mus. et in Myc. univ. n. 963. — Hypophylla; peritheciis minutis, nigris, innatis, prominulis aut in maculas irregulares angulatas, subconfluentes venulis limitatas collectis; ascis subcylindraceis, sæpe cur- 1937

vulis et sursum angustatis; sporidiis biseriatis, uniseptatis, oblongis, hyalinis, 10–13 μ. longis, rarius quadrinucleatis, inferiore cellula plerumque angustiore.

Hab. in foliis vivis vel languidis Impatientis fulvæ, Buffalo, in montibus Adirondack, Amer. bor. (Peck).

120. **Sphærella carniolica** Niessl Neue Kernp. p. 85. — Epi- rarius hypophylla; peritheciis dense disseminatis, minutis, punctiformibus, globosis, papillatis, tandem vertice umbilicatis, atris; ascis fasciculatis 8sporis, obovatis vel oblongis, sessilibus 30–42 ≃ 14–18; sporidiis farctis, cuneato-oblongis, rectis, medio septatis vix constrictis, dilute virescentibus, 15–19 ≃ 4–5. 1938

Hab. in foliis emortuis Drabæ ciliatæ in M. Nanos Carnioliæ. — Affinis *Sphærellæ confini* Karst. — Var. *major (Sph. minuta* Auersw.?): peritheciis plerumque sparsis papillatis; sporidiis 16–20 ≃ 5–6. In foliis pedunculisque Drabæ aizoidis in Tyrolia.

121. **Sphærella brassicicola** (Duby) Ces. et De Not. Schema p. 64, *Sphæria brassicæcola* Fr. et Duby Bot. Gall. II, p. 712, *Dothidea Brassicæ* Desm., *Sphæria Brassicæ* B. et Br. — Peritheciis dense confertis, greges atros varios efficientibus, globoso-lenticularibus, 80 μ. diam. amphigenis, prominulis, in maculis pallide viridibus centro arescendo fuscescentibus sitis, pertusis, contextu ochraceo-fuligineo; ascis crasse cylindraceis, 50 ≃ 15, aparaphysatis, octosporis; sporidiis 2–3-stichis, oblongis v. clavulatis, 18 ≃ $3^1/_2$, sæpe curvulis, 1-septatis, vix constrictis, hyalinis. — Spermogonium sistit *Asteroma Brassicæ* Chev. 1939

Hab. in foliis Brassicæ oleraceæ, rarius in siliquis, in Gallia, Germania, Italia et Belgio.

122. **Sphærella sylvatica** Sacc. et Speg. Mich. I, 380, F. ital. t. 382. — Maculis in foliis nullis obsoletisve; peritheciis dense et late gregariis, plerumque epiphyllis, lenticularibus, punctiformibus, poro pertusis; ascis cylindraceis breve stipitatis, 50–55 ≃ 10, apice rotundatis, aparaphysatis, 8sporis; sporidiis distichis oblongo-clavulatis, 12–14 ≃ 4, rectis, valde constrictis, 1-septatis, loculo superiore, 2-guttulatis, hyalinis. 1940

Hab. in foliis emortuis Scabiosæ sylvaticæ in collibus, Conegliano Italiæ borealis.

123. **Sphærella Sarraceniæ** (Schw.) Sacc. *Sphæria Sarraceniæ* Schw. Syn. Carol. n. 77, Berk. North Am. Fungi. — Effusa, effigurata, tenuissima, cinerea; peritheciis minutissimis, ostiolis subsetaceis (?) 1941

pulverigeris; ascis brevissimis, obovatis; sporidiis oblongis, uniseptatis, 10 μ. longis, hyalinis.

Hab. in foliis siccis Sarraceniæ purpureæ et rubræ, Carolina, Amer. bor. — Distinguitur colore cinereo, efficiens maculas varie configuratas unciales et triunciales. Perithecia cum cortice assurgentia, variolosam quasi reddunt superficiem. Ostiola sparsa, adsperso pulvere nigerrima.

124. **Sphærella microspila** (B. et Br.) Cooke Handb. p. 919 *Sphæria microspila* B. et Br. Ann. N. Hist. n. 984, t. 17, fig. 36. — Peritheciis sparsis, globosis, singulis pluribusve macula minuta brunnea innatis, mycelioque tenui cinctis; ascis cylindraceis; sporidiis oblongo-ellipsoideis, uniseptatis, hyalinis, 8-11 μ. longis. 1942

Hab. in foliis languidis v. emortuis Epilobii montani et E. Dodonæi in Britannia, Belgio et Italia. — A *Sphærellæ minori* Karst. tute distinguenda.

125. **Sphærella Epilobii** (Crié sub *Dep.*) Sacc., Crié Sur les Dep. p. 40, tab. VI, fig. 1. — Peritheciis amphigenis, nigris; ascis longe clavatis, apice rotundatis; sporidiis subdistichis oblongo-ellipsoideis, 1-septatis, non constrictis, dilute amethysticis, 16-19 ≃ 4-5. 1943

Hab. in Gallia in foliis Epilobiorum prope omnium, aut., sociis spermogoniis (*Septoria*) et pycnidibus (*Phoma*).

126. **Sphærella Vulnerariæ** Fuck. Symb. myc. App. II, p. 21. — Peritheciis ascigeris in foliorum marcescentium aridorumque pagina superiori ortis, plerumque greges densos, plus minusve laxos, orbiculares oblongosve, nigros formantibus, singulis globosis, obtusis, demum semiliberis, perforatis, nigris; ascis fasciculatis, oblongis, curvatis, substipitatis, 8sporis, 48 ≃ 12; sporidiis subdistichis, fusiformibus, rectis, inæqualiter biloculatis, guttulatis, hyalinis, 16 ≃ 4. — St. conidicus sistit *Cercosporam radiatam;* spermogonicus *Ascochytam Vulnerariæ* Fuck. (teste ipso Fuck). 1944

Hab. in foliis languidis v. siccis Anthyllidis Vulnerariæ pr. Neuchâtel Helvetiæ (Morthier).

127. **Sphærella phaseolicola** (Desm.) Sacc. *Depazea phaseolicola* Rob. et Desm. XVII. Not. p. 32, n. 47. — Maculis amphigenis, pallide rufescentibus, exaridis, subzonatis; peritheciis minutis numerosis brunneis, innato-prominulis, epidermide tectis; ostiolis nigris punctiformibus; ascis brevibus, crassis, subclavatis, 50 μ. longis; sporidiis oblongis utrinque obtusis, rectis v. curvulis, 15-20 ≃ 5, plasmate bipartito, (spurie?) 1-septatis, hyalinis. 1945

Hab. in foliis languescentibus Phaseolorum in Gallia. — Maculæ 5-10 mill. diam.

128. **Sphærella Morierei** (Crié sub *Dep.*) Sacc., Crié sur les Dep. p. 39, t. 7, fig. 6. — Maculis indeterminatis, fuscescentibus, zona prominula cinctis; peritheciis nigris, amphigenis; ascis clavatis ad apicem crassiusculis, octosporis; sporidiis ellipsoideis, bilocularibus, guttulis binis oleosis (sub microscopico constantissime dilute roseis), 16-18 ≃ 4-5. 1946

Hab. in Gallia, Sillé-le-Guillaume, in foliis Phaseolorum, Pisorum, æstate 1871, socio spermogonio *Septoriam* sistente.

129. **Sphærella nemorosa** Sacc. et Sp. Mich. I, p. 378, F. ital. t. 377. — Maculis in foliis sordide ochraceis, fusco-cinctis, obtuse angulosis; peritheciis epiphyllis paucis, punctiformibus, lenticularibus, 100 μ. diam., poro 25 μ.. diam. pertusis; contextu parenchymatico-dilute fusco-olivaceo; ascis oblongo-clavatis, 40-45 ≃ 13-14, subsessilibus, apice truncatis, aparaphysatis, octosporis; sporidiis distichis, biconicis, 14 ≃ 5, 1-septatis, non constrictis, 4-guttulatis v. 2-nucleatis, hyalinis. 1947

Hab. in foliis languidis Orobi verni, Conegliano, Ital. bor.

130. **Sphærella nerviseda** Speg. Mich. I, p. 456. — Peritheciis innatis, sphæroidis, ostiolo perforato papillato donatis, 100-120 μ. diam.; contextu minute parenchymatico, atro; ascis clavatis, vel cylindraceo-clavatis, aparaphysatis, 35-45 ≃ 7-7½, octosporis; sporidiis oblongo-cylindraceis, didymis quandoque curvulis, ad septum vix constrictis, hyalinis, 15-20 ≃ 2½-3, distichis vel oblique monostichis. 1948

Hab. in nervis foliorum putrescentium, quæ toruloso-reticulata evadunt, Orobi verni, Conegliano, Ital. bor. — Cum *Sph. nemorosa* Sacc. et Sp. in eadem planta vigente non comparanda.

131. **Sphærella Ariadna** Sacc. Mich. I, p. 34. — Maculis vagis, arescendo dealbatis, linea rufa cinctis; peritheciis in macula gregariis innato-erumpentibus, globulosis, 40-50 μ. d., punctiformibus, ostiolo impresso pertuso; ascis obovatis, basi acutatis, apice rotundatis 20-25 ≃ 12-14, aparaphysatis, octosporis; sporidiis 2-3-stichis, cylindraceo-fusoideis, 12-14 ≃ 3¾-4, utrinque obtusiusculis, constricto-1-septatis, minute 4-guttulatis, hyalinis. 1949

Hab. in foliis Coronillæ Emeri languidis, in sylva Montello Italiæ borealis. — Cum *Sphærella Emeri* Ces. in Rabh. F. E. n. 1950 nil commune habet; potius *Sphærellæ minori* Karst. cognata. Var. *Tormentillæ* Sacc. Mich. I, p. 379, F. it. t. 379. — Maculis pallidis, rufo-cinctis. A typo vix differt sporidiis curvulis,

septo minus constrictis. In foliis Tormentillæ erectæ in Italia boreali.

132. **Sphærella geicola** Kalch. et Cooke Grev. IX, 1880, p. 30. — 1950
Hypophylla; maculis suborbicularibus, fuscis, purpureo-cinctis; peritheciis semiimmersis, numerosis, atro-fuscis; ascis clavatis; sporidiis breviter lanceolatis, binucleatis, dein uniseptatis, hyalinis, vix constrictis, 16–17 ≃ 3,5.

Hab. in foliis Gei capensis in Africa australi.

133. **Sphærella Fragariæ** (Tul.) Sacc. *Sphæria Fragariæ* Tul. Ann. 1951
Sc. nat. IV, t. V, p. 112, *Stigmatea Fragariæ* Tul. Carp. II, 288 p. p. — Maculis epiphyllis purpurascentibus, dein centro expallentibus; peritheciis circinantibus, minutissimis, globulosis, nigris, innato-erumpentibus; ascis oblongis, sessilibus, octosporis, 40 μ. longis; sporidiis inordinatis, oblongo-ovatis, uniseptatis, leniter constrictis, 15 ≃ 3–4, hyalinis. — Spermogonium sistit *Septoriam Fragariæ* Desm. St. conidicus sistit *Graphium* v. *Stysanum* (Cfr. Fuck. Symb. et Tul. l. c.).

Hab. in foliis languidis Fragariæ vescæ et F. virginianæ in Gallia, Germania et Italia. — *Sphæria Fragariæ* Schw. Syn. Am. bor. n. 1769, huc verisimillime spetat; hæc lecta est in foliis Fragariarum in hortis Bethlehem, Americæ borealis. Ibi *Graphium* pro ostiolo clavato-incrassato fibrilloso habetur.

134. **Sphærella Dejanira** Sacc. Fungi Ven. Ser. II, p. 300. — Peri- 1952
theciis epiphyllis in iisdem maculis, paucis, punctiformibus, globoso-lenticularibus, 50 μ. diam., ostiolo impresso, exiguo pertusis; ascis oblongo-ovoideis, 35 ≃ 18, sessilibus, 8sporis; sporidiis distichis, ovoideis oblongisve, 14–15 ≃ 7, didymis, septo leniter constrictis, 4guttulatis, hyalinis. — St. spermogonicus sistit *Phyllostictam Arunci* Sacc.

Hab. in foliis languentibus Spirææ Arunci, pr. Treviso, Italia boreali, raro.

135. **Sphærella maculans** Sacc. et Roum. Reliq. mycol. Lib. Ser. II. 1953
n. 165, t. XX, fig. 10. — Peritheciis hypophyllis, densissime gregariis, maculasque latas nigricantes efficientibus, subtectis, globoso-lenticularibus, 80–100 μ. diam., poro pertusis; ascis teretibus, breve stipitatis, apice rotundatis, 45–50 ≃ 10, aparaphysatis, octosporis; sporidiis distichis, fusoideis, constricto-1-septatis, leniter curvis, 18–20 ≃ 3–3½, hyalinis.

Hab. in pag. inf. foliorum Spirææ Ulmariæ, Malmedy in finibus Galliæ et Germaniæ.

136. **Sphærella ootheca** Sacc. Mich. II, p. 160. — Peritheciis epiphyllis, subgregariis, innato-erumpentibus, e globoso depresso-conoideis, atris, membranaceo-densiusculis, $^1/_{10}$ mill. diam.; ascis crasse obovatis, 40 ≃ 28, apice obtuse rotundatis, basi brevissime stipitato-apiculatis, aparaphysatis, octosporis; sporidiis 2–3-stichis, oblongis, 1-septatis, lenissime constrictis, 15–16 ≃ 6–7, utrinque obtusiusculis, hyalinis. 1954

Hab. in pagina superiore foliorum emortuorum Dryadis octopetalæ in alpinis Vette di Feltre, Belluno, Italiæ borealis (Bizzozero).

137. **Sphærella Dryadis** Auersw. Myc. Eur. Pyr. p. 8. fig. 100. — Peritheciis hypophyllis, nigris, in parenchymate foliis nidulantibus, rostro brevi conico epidermidem perforantibus, sparsis, globulosis, 200–250 μ. latis; ascis ample cylindricis brevissime stipitatis, 8-sporis, 50–60 ≃ 10; sporidiis biserialibus, fusiformi-oblongis, utrinque subacutis, uniseptatis, ad sepimentum leviter constrictis, pallidis, 4–6 nucleatis, 18 ≃ 4. 1955

Hab. in pag. inf. foliorum Dryadis octopetalæ in Germania. — A *Didymella Dryadis* Speg. diversa videtur.

138. **Sphærella Biberwierensis** Auersw. Myc. Eur. Pyr. p. 9, fig. 101. — Peritheciis epiphyllis, nigris, maculis fuliginosis, minutis, ($^1/_5$–1 mill. latis, angulosis, innatis, gregariis, subglobosis, poro simplici pertusis, 140 μ. latis; ascis oblongis, sessilibus, 6-sporis; sporidiis 2–3-serialibus, obovato-oblongis, utrinque rotundatis, uniseptatis, hyalinis, 8 ≃ $2^1/_2$. 1956

Hab. in pag. superiore foliorum Dryadis octopetalæ in Germania.

139. **Sphærella innumerella** Karst. Myc. Fenn. II, 182. — Peritheciis hypophyllis, gregariis, erumpentibus, sphæroideis, poro pertusis, atris, 75–100 μ. latit.; ascis brevissime pedicellatis, cylindraceo-clavatis, interdum infra oblique inflatulis, 42–51 ≃ 8–9; sporidiis subsenis subtristichis, fusoideo-bacillaribus, medio uniseptatis, ad septum non constrictis, rectis vel curvulis, hyalinis, 18–21 ≃ 3–4, rarius 17–24 ≃ 5. 1957

Hab. in foliis putridis Comari palustris prope Mustiala Fenniæ (Karst.) et Shrewsbury Britanniæ (Plowright). — Cum *Sph. Grossulariæ* permultis rationibus congruit.

140. **Sphærella melanoplaca** (Desm.) Auersw. M. Eur. Pyr. p. 13, fig. 108, *Sphæria melanoplaca* Desm. XX. Not. 10. — Epiphylla, rarius amphigena; peritheciis minutissimis, numerosis, innato-pro- 1958

minulis, nigris, subnitidis, poro simplici pertusis, in macula magna fuliginea gregariis, 50–80 μ. diam., nucleo albido; ascis brevibus cylindraceis, 40–42 ≃ 8, crassis, absque paraphysibus; sporidiis 3–4-serialibus, lanceolato-fusoideis utrinque obtusis, 1-septatis, hyalinis, 22 ≃ 3.

Hab. in Gallia in foliis languescentibus vel exsiccatis Gei urbani, hieme.

141. **Sphærella pseudo-maculiformis** (Desm.) Auersw. Myc. Eur. p. 12, fig. 51, *Sphæria* (foliicola) *pseudo-maculiformis* Desm. 1846, 13 Not. p. 83. — Epi- rarius hypophylla, innato-prominula, atra; peritheciis minutissimis, globosis, intus albidis, in maculam conglomeratis; ascis brevibus, subcylindricis, crassis arcuatis vel rectis 25–35 ≃ 4–5; sporidiis tereti-oblongis, 8–10 ≃ 2, curvulis, 1-septatis, non constrictis, chlorino-hyalinis. — Sec. Fuck. Symb. myc. *Scolecotrichum bulbigerum* Fuck. est status conidiophorus. 1959

Hab. in foliis siccis Poterii Sanguisorbæ in Gallia et in Germania.

142. **Sphærella Jurineæ** Fuck. Symb. myc. p. 99, Auersw. Myc. Eur. Pyr. p. 13, fig. 106. — Peritheciis sparsis, *Sphærellæ punctiformis* duplo majoribus, conicis, subliberis, astomis, atris, 250–300 μ. diam.; ascis clavato-oblongis, breve stipitatis, 36 ≃ 8, 8sporis; sporidiis oblongis, medio parum constrictis, uniseptatis, hyalinis, 10 ≃ 4. 1960

Hab. in pag. super. foliorum Jurineæ cyanoides, Budenheim Germaniæ.

143. **Sphærella eriophila** Niessl Neue Kernp. p. 86. — Peritheciis sparsis, erumpentibus, minutis, subglobosis, ostiolo papillæformi, atris, nitidis, luce diffusa læte castaneis, coriaceis; ascis obovatis vel ovoideo-oblongis, sessilibus, 74–83 ≃ 30–45; sporidiis octonis, irregulariter 3stichis seu farctis, ex oblongo cuneatis, inferne perparum attenuatis, rectis, medio septatis et paulo constrictis, dilutissime virescentibus, 20–30 ≃ 8–9. 1961

Hab. in foliis ramulisque emortuis Artemisiæ Mutellinæ, A. spicatæ, A. glacialis, A. lanatæ, A. Baumgartenii in Alpibus Helvetiæ et Germaniæ.

144. **Sphærella confinis** Karst. Fung. in Spetsb. et Beer. Ell. coll. p. 106 et Myc. Fenn. II, p. 179. — Peritheciis amphigenis, primitus epidermidi innatis, dein protuberantibus, sparsis vel gregariis, sphæroideis, poro pertusis, atris, 100–120 μ. latit.; ascis breviter pedicellatis vel subsessilibus, elongatis vel elongato-clavatis, raro deorsum leviter inflatis, 45–52 ≃ 10–13; sporidiis octonis, distichis, 1962

aciculari-elongatis, medio uniseptatis, ad septum haud vel vix constrictis, hyalinis vel chlorino-hyalinis, 14–19 ≃ 3–5.

Hab. in foliis Senecionis vulgaris exsiccatis in Fennia, in foliis emortuis Brayæ et Drabarum in Spitzbergia.

145. **Sphærella Pieris** Sacc. Fungi Ven. Ser. II, p. 302. — Perithe- 1963
ciis in iisdem maculis parcis, remotis, lenticularibus, 100–120 μ. diam., ostiolo impresso latiuscule pertuso, contextu laxe parenchymatico, fuligineo; ascis clavatis, subsessilibus, deorsum attenuatis, 50–55 ≃ 12–15, 8sporis; sporidiis distichis, oblongis, curvulis, constricto-didymis, utrinque obtusiuscule attenuatis, 20 ≃ 7–8, minute 4-guttulatis, hyalinis. — Status spermogonicus sistit *Phyllostictam Farfaræ* Sacc.

Hab. in pagina superiori foliorum languentium Tussilaginis Farfaræ, Covolo, Treviso Italia bor. raro. — Cum *Sphærella Tussilaginis* Rehm et *Sph. Petasitidis* Rabh. non comparanda.

146. **Sphærella Tussilaginis** Rehm Asc. n. 100, Wint. Diagn. p. 10 1964
(Flora, 1872). — Peritheciis epiphyllis, epidermidi innatis, dense gregariis, globosis, nigris, poro simplici pertusis, 90–120 μ. lat.; ascis oblongo-pyriformibus, sessilibus, 8-sporis, 40–45 ≃ 10–12; paraphysibus nullis; sporidiis distichis, clavato-oblongis vel obovatis, hyalinis, uniseptatis, inæqualiter didymis, 12–14 ≃ 3.

Hab. in foliis putridis Tussilaginis Farfaræ prope Windsheim Germaniæ.

147. **Sphærella Arnicæ** Speg. Nova Add. n. 66, Mich. II, 247. — 1965
Peritheciis dense gregariis, globosis, siccis cupulatis, subepidermicis, atro-carbonaceis, 120–150 μ. diam., maculis primo rotundatis fuscescentibus, dein magnis, amorphis, sæpe totum folium occupantibus e griseo candidis insidentibus; ascis clavatis, basi brevissime pedicellatis, apice acutiuscule rotundatis, octosporis, 25 ≃ 6, aparaphysatis?; sporidiis ellipticis, medio uniseptatis, constrictis, hyalinis, triguttulatis.

Hab. in foliis Arnicæ montanæ in pascuis M. Antelao Italiæ borealis. — Specimina haud prorsus matura.

148. **Sphærella Carlinæ** Winter in Hedw. 1871, p. 162. — Peritheciis 1966
gregariis globosis, minutis, nigro-fuscis, ostiolo minutissimo demum perforato; ascis elongato-oblongis, 8-sporis, 36 ≃ 8, aparaphysatis; sporidiis distichis oblongo-lanceolatis, inæqualiter bilocularibus, hyalinis, medio constrictis, 14 ≃ 3.

Hab. in Saxonia, Lipsiæ prope Kleinzschocher, in foliis aridis Carlinæ vulgaris (Wint.). — *Sphærellæ Jurineæ* Fuck. affinis.

149. **Sphærella affinis** Wint. in Myc. Univ. n. 59, Rehm Asc. n. 294. 1967
Peritheciis dense gregariis primo epidermide tectis, demum erumpentibus, globosis, fusco-atris, poro simplici pertusis, 90–140 μ. d.; ascis clavato-cylindraceis substipitatis, 8-sporis, 45–52 ≃ 10–12; sporidiis subdistichis, lanceolato-cylindraceis rectis v. leviter curvatis, uniseptatis, ad septum non constrictis, hyalinis, 18–22 ≃ 3–4.

Hab. in Bavaria, Bayreuth, ad folia arida Carlinæ vulgaris, vere 1874 (Thuem.).

150. **Sphærella sarracenica** Sacc. et Roum. Reliq. myc. Libert. Ser. 1968
II, n. 136, t. XX, fig. 12. — Peritheciis amphigenis laxe gregariis globoso-lenticularibus, innato-erumpentibus, 1/6 mill. diam., pertusis; ascis tereti-clavatis, brevissime stipitatis apice obtusis, 50 ≃ 8, aparaphysatis, octosporis; sporidiis distichis oblongo-clavulatis 12–14 ≃ 3 1/2–4, bilocularibus, vix constrictis, loculo inferiore minore, hyalinis.

Hab. in foliis emortuis Senecionis sarracenici, Malmedy in finibus Galliæ et Germaniæ.

151. **Sphærella Taraxaci** Karst. Fungi Spets. n. 51. — Peritheciis dense 1869
gregariis, amphigenis, protuberantibus, sphæroideis, dein ore rotundato hiantibus, glabris, nigris, 150–200 μ. lat.; ascis subsessilibus, elongato-clavatis, 45–65 ≃ 12–15, octosporis; sporidiis distichis vel subtristichis, fusoideo-elongatis, rectis, uniseptatis, hyalinis, 14–20 ≃ 3–4; paraphysibus nullis.

Hab. in foliis Taraxaci phymatocarpi emortuis ad Lommebay et Kingsbay, Spitzberg.

152. **Sphærella sibirica** Thüm. Beitr. Pilz. Sibir. n. 766. — Perithe- 1970
ciis hypophyllis, interdum perforantibus, dense gregariis, globulosis, semiimmersis, liberis, nitido-atris; ascis late clavulatis, utrinque subangustatis, hyalinis, membrana tenui, octosporis, subsessilibus; sporidiis longe ellipticis, utrinque acutato-rotundatis, medio septatis sed non constrictis, homogeneis, enucleatis, hyalinis, 20–22 ≃ 5–6; paraphysibus non visis.

Hab. ad Dianthi versicoloris folia arida in plantis adhuc virentibus in campis prope Patroschilowo Sibiriæ asiaticæ.

153. **Sphærella Smegmatos** Pass. Diagn. fung. nuovi n. 4. — Peri- 1971
theciis sparsis, epidermide tectis, punctiformibus, ostiolo acuto, atro, emersis; ascis brevibus amplis, cylindrico-saccatis, vel etiam lageniformibus, 8sporis, mox evanidis; sporidiis inordinatis, oblongo-spathulatis, uniseptatis, non constrictis, apicibus rotundatis, loculo altero angustiore, hyalinis.

Hab. in foliis putrescentibus Saporariæ officinalis prope Parma, Ital. bor., socia *Vermicularicæ* specie, quæ forte spermogonium sistit.

154. **Sphærella isariphora** (Desm.) De Not. Schema Sf. p. 63, *Sphæria* 1972
isariphora Desm. 10 Not. 1843, p. 24, *Leptosphæria isariphora* Auersw. Myc. Eur. Pyr. fig. 170, *Sphærella Stellariæ* Fuck., Sacc. Myc. Ven. Spec. p. 94, t. IX, fig. 8–10. — Hypo- rarius epiphylla, sparsa subapproximata; peritheciis tectis, minimis, globoso-depressis, atris, poro apertis, 100–150 μ. diam.; ascis minutis, tereti-clavatis, 40–50 ≃ 5–7; sporidiis hyalinis, ovato-oblongis uniseptatis 9–10 ≃ 4. — St. conidicus sistit *Stysanum pusillum* Fuck. (in St. media) et *Stysanum pallescentem* Fuck. (in St. nemorum) St. spermogonicus sistit *Septoriam Stellariæ* West.

Hab. in foliis siccis Stellariæ gramineæ, St. holosteæ, St. nemorum, St. mediæ in Gallia, Fennia, Germania, Britannia, Italia, Belgio, rarius tamen ascophora. — Paraphyses nullæ ergo genuina *Sphærella*. Cl. Fuck., secundum differentias conidiorum, distinguit *Sph. isariphoram* a *Sph. Stellariæ*, sed ad diem st. ascophorus unicus notus est, ergo res ulterius inquirenda.

155. **Sphærella Venziana** Sacc. Fungi Ven. Ser. II, p. 303. — Ma- 1973
culis nullis; peritheciis amphigenis, sparsis, lenticularibus, atris 100 μ. diam., ostiolo impresso pertusis, contextu laxe parenchymatico fuligineo; ascis fasciculatis, cylindraceo-clavatis, 45–50 ≃ 8, 8sporis; sporidiis distichis, oblongis, sursum clavulatis, 1-septatis, septo vix vel non constrictis, 12–14 ≃ 3–3½, minute 4-guttulatis, vel 2-nucleatis, hyalinis.

Hab. in foliis et in sepalis aridis Facchiniæ lanceolatæ et Cherleriæ in alpibus del Cadore, Belluno Italiæ borealis, ubi legit pharm. S. Venzo. — A *Sph. isariphora* ascis crassioribus, sporidiis angustioribus clavulatis præ ceteris differt.

156. **Sphærella Stellarinearum** (Rabh.) Karst. Fungi Spets. n. 48 (!), 1974
Sphæria Stellarinearum Rabh. Herb. myc. 975 (?). — Peritheciis subsparsis, amphigenis, tectis, punctiformibus, poro pertusis; ascis sessilibus, ovoideis, 60 ≃ 20, octosporis; sporidiis conglobatis, ovoideo-oblongatis, rectis vel leviter curvulis, uniseptatis, hyalinis, medio non constrictis, 20–24 ≃ 6.

Hab. in foliis emortuis Stellariæ Edwardsii et St. humifusæ pr. Spitzberg. — A *Sph. isariphora* (Desm.) ascis sporidiisque multo majoribus differt.

157. **Sphærella erysiphina** (Berk. et Br.) Cooke Handb. n. 2766, *Sph.* 1975

erysiphina B. et Br. Journ. Hort. Soc. IX, p. 66. — Epiphylla; peritheciis sparsis, minutis, sæpius superficialibus, brunneis; ascis cylindricis; sporidiis monostichis, uniseptatis, hyalinis, 12–13 μ. long.

Hab. in foliis vivis Humuli Lupuli, sæpe in consortio *Sphærothecæ Castagnei*, in Britannia.

158. **Sphærella Eryngii** (Wallr.) Cooke Handb. n. 2761, *Sphæria Eryngii* Fr. in litt. Duby Gall. II, 710. — Peritheciis minutissimis hypophlœodeis, amphigenis, nigris, inæqualibus, dense gregariis spatia internervia obliterantibus, demum vertice convexo emergentibus, intus albis; ascis crasse cylindraceis, flexuosis, octosporis; sporidiis distichis, uniseptatis, ad septum constrictis, utrinque attenuatis, hyalinis, 20 μ. long. — Sec. Fuck. spermog. est *Cambosira reticulata* Fr. f. *Eryngii* (=*Asteroma Eryngii* Auersw. Pyr. Heufl. p. 4). 1976

Hab. in foliis exsiccatis Eryngii campestris et maritimi in Gallia, Germania, Belgio, Italia, Britannia. — Var. *Libanotis* Fuck. — In foliis Libanotis montanæ in Helvetia; sed non plene evoluta.

159. **Sphærella Primulæ** (Auersw.) Wint. Hedw. 1880, p. 166, *Sphærella clandestina* Niessl, Beitr. p. 18, t. IV, fig. 24, *Stigmatea Primulæ* Auersw. et Heufl. in Hedw. 1878, p. 184. — Peritheciis sparsis gregariisve ovoideis v. plus minus conicis, minute papillatis, erumpentibus, atris, basi fibrillosis; ascis brevibus subcylindricis, sessilibus, apice rotundatis, 8sporis 62–100 ≃ 12–18; sporidiis biseriatis, oblongis, uniseptatis, nubilosis, 22–28 ≃ 4–6. 1977

Hab. in foliis Primulæ minimæ, Gregoriæ, Androsaces in Germania, Austria, Helvetia.

160. **Sphærella Harknessii** Sacc. *Sphærella brachytheca* C. et Harkn. Grevill. IX, 1880, p. 8 (nec Cooke Grevill. VII, p. 88 (1879)). — Peritheciis sparsis tectis, exiguis, 60 μ. diam., membranaceis; ascis ovatis, 20 ≃ 16; sporidiis ellipticis, uniseptatis, hyalinis, 8 ≃ 4. 1978

Hab. in caule Convolvuli in California (Harkness).

161. **Sphærella adusta** Niessl Neue Kernp. p. 86. — Peritheciis minutis dense confertis lateque effusis, ambientis, globosis, papillatis tectis, membranaceis, atris; ascis oblongo-clavatis, subsessilibus, octosporis 30–48 ≃ 9, sporidiis farctis cuneato-oblongis seu inferne parum attenuatis, inæquilateralibus, medio septatis, pauloque constrictis, hyalinis, 12–16 ≃ 3–5. 1979

Hab. in caulibus, qui cinereo-maculosi fiunt, Convolvuli arvensis prope Brünn Moraviæ.

162. **Sphærella Rumicis** (Desm.) Cooke Handb. n. 2769, *Sphæria Rumicis* Desm. Nouv. Not. 1843, p. 44. — Maculis amphigenis, minutis, numerosis, orbiculatis, sparsis, brunneis, viridulo-cinctis; peritheciis epiphyllis, conglomeratis, 100–140 μ. diam.; innato-prominulis, perexiguis, globoso-depressis, collabascendo-concavis, olivaceis, dein subnigris, poro simplici pertusis; ascis amplis, tubulosis, parum curvatis, e duplici membrana compositis, 50 ≃ 14; sporidiis pallide olivaceis, ovato-oblongis, obtusis, uniseptatis 12–14 ≃ 4. — *Ovularia obovata* (Fuck.) Sacc. sistit st. conidicum. 1980

Hab. in foliis languescentibus Rumicis Nemolapathi, R. crispi, R. conglomerati in Gallia, Britannia, Germania, Belgio et Fennia.

163. **Sphærella eucarpa** Karst. Fung. Spetsb. n. 44. — Peritheciis sparsis vel gregariis, epiphyllis, epidermidi innatis, sphæroideis, poro vix conspicuo pertusis, nigris, glabris, circiter 150 μ. latit.; ascis subsessilibus, subellipsoideis vel oblongato-clavatis, 120–140 ≃ 45–55, octosporis; sporidiis conglobatis, ovoideo-oblongatis, utrinque obtusis, rectis, uniseptatis, medio levissime constrictis, loculo utroque guttula unica ornato, luteolo-hyalinis, 32–40 ≃ 13–14; paraphysibus nullis. 1981

Hab. in foliis Polygoni vivipari vetustis ad Adventbay et Crossbay, pr. Spitzberg.

164. **Sphærella Polygonorum** (Crié sub *Dep.*) Sacc., Crié Sur les Dep. p. 41, t. 8, fig. 4. — Maculis epiphyllis rotundatis, zona prominula fuscescenti-rubra cinctis; peritheciis epiphyllis, prominulis, nigris; ascis cylindraceis, octosporis; sporidiis ellipsoideis, utrinque obtusis, 1-septatis, 17–18 ≃ 6, dilute virescentibus. 1982

Hab. in Gallia, in foliis vivis Polygonorum et Rumicum, decedente autumno, sociis spermogoniis (*Septoria*) et pycnidibus (*Diplodia, Hendersonia*).

165. **Sphærella Circe** Sacc. Fungi Ven. Ser. II, p. 301. — Maculis irregularibus, majusculis, amphigenis, albidis, rufo-cinctis; peritheciis paucis, globoso-lenticularibus, punctiformibus, 80 μ. diam., poro latiustulo pertusis, contextu laxe parenchymatico; ascis fasciculatis, oblongo-clavulatis, 40–50 ≃ 11, 8sporis; sporidiis distichis, ovoideo-oblongis, 12–15 ≃ 5–6, didymis, septo constrictis, 4-guttulatis, hyalinis. 1983

Hab. in foliis languidis Phytolaccæ decandræ prope Treviso Italiæ borealis.

166. **Sphærella depazeæformis** (Auersw.) Ces. et De Not. Schema 1984

Sfer. ital. p. 238, Auersw. Myc. Eur. Pyr. p. 13, t. 4, fig. 50. — Peritheciis amphigenis, nigris, epidermidi innatis centro maculæ rotundatæ, rufescentis, obscurius, marginatæ, insidentibus, globulosis, poro simplici pertusis, 40–46 μ. fere latis; ascis ex ovata basi attenuatis, brevissime stipitatis, 8-sporis, 34–36 ≃ 8; sporidiis 2–3serialiter stipatis, fusiformi-oblongis, utrinque obtusatis, rectis, uniseptatis, ad sepimentum neutiquam constrictis, hyalinis, 8–10 ≃ 2–3.

Hab. in foliis Oxalidis Acetosellæ emortuis in Germania.

167. **Sphærella Selene** Sacc. Fungi Ven. Ser. II, p. 301. — Maculis 1985
amphigenis candidis, magnitudine variis, fuligineo-cinctis; peritheciis epidermide tenuissima velatis, punctiformibus, lenticularibus, 66 μ. diam., ostiolo umbilicato latiuscule pertuso; ascis clavato-oblongis, 55 ≃ 15, basi breve attenuatis, 8sporis; sporidiis inordinate distichis, breve fusoideis, didymis, loculis inæqualibus, utrinque acutiusculis, 20 ≃ 7, 4-guttulatis, hyalinis.

Hab. in foliis languentibus Oxalidis strictæ, Selva, Treviso, Italiæ bor. — *Sphærella depazeæformis* (Auersw.) Ces. et De Not. differt sporidiis et ascis multo minoribus et diverse efformatis.

++ *Clado-carpogenæ.*

168. **Sphærella melæna** (Pr.) Auersw. Myc. Eur. Pyr. p. 16, fig. 65. 1986
Sphæria melæna Fr. S. M. II. 431, p. p. — Peritheciis nigris, epidermide adnatis, densissime congestis, ac connatis, poro simplici pertusis, 66–80 μ. latis; ascis obovatis, sessilibus, 8-sporis, 27 ≃ 14; sporidiis 3–4-serialiter stipatis, obovato-oblongis, utrinque rotundatis, infra medium uniseptatis, ad sepimentum non constrictis, pallide luteolis vel subhyalinis.

Hab. in caulibus siccis Meliloti, Viciæ, Lathyri, Astragali Glycyphylli in Suecia et Germania.

169. **Sphærella Plantaginis** Sollm. Bot. Zeit. XXII, p. 281, t. IX, f. 1987
27–35. — Peritheciis gregariis, interdum subconfluentibus, minutissimis, glabris, levibus, atronitidis, basi applanatis, hemisphæricis, poro tandem pertusis; ascis brevibus, crassisque, tereti-clavatis, octosporis, aparaphysatis; sporidiis oblongo-ellipticis, utrinque acutiusculis, 1-septatis leniterque constrictis, 10–11 μ. longis.

Hab. in scapis Plantaginis lanceolatæ et mediæ pr. Brünn (Niessl). — In exemplaribus a cl. Niessl missis vidi tantum

spermogonium sistens *Septoriam Plantaginis;* peritheciis subtectis dense gregariis punctiformibus, 90–100 μ. diam., pertusis, spermatiis bacillaribus rectiusculis, 18–21 ≃ 1, spurie 1–3-septatis hyalinis. — *Sphæria Plantaginis* Ces. Bot. Zeit. 1853, IX, p. 237 forte *Sphærellæ* speciem sistit sed nucleus ignotus manet.

170. **Sphærella circumvaga** (Desm.) Sacc. Mich. II. p. 56. *Dothidea circumvaga.* Desm. 14, n. 1847, p. 175. — Innata, picea, caules ambiens; peritheciis minutissimis, stipatis, subglobosis, nucleo sicco albo farctis; ascis clavatis, brevibus, apice rotundatis; sporidiis subpyriformibus, seu oblongo-clavulatis, 8–10 ≃ 4, apice rotundatis, tenuiter 1-septatis, hyalinis. 1988

Hab. in caulibus Medicaginis falcatæ exsiccatis, in Vogesis Galliæ.

171. **Sphærella pinodes** (B. et Blox.) Niessl in F. Eur. n. 1947. *Sphæria pinodes* B. et Blox. in Ann. N. H. n. 981, t. 17, fig. 34, Cooke Handb. n. 2732. — Sparsa, minutissima, subhemisphærica, depressa, sub-astoma; ascis brevibus, crasse clavatis, aparaphysatis, octosporis; sporidiis 2–3-stichis oblongis, constricto 1-septatis, hyalinis. 1989

Hab. in caulibus Pisi sativi in Britannia et Germania.

172. **Sphærella Trifolii** Karst. Myc. Fenn. II. p. 174. — Perithecis sparsis vel gregariis sæpe dense congestis, epidermide vulgo colore fusco-nigro tincta adnatis tectis, conoideo-rotundatis, basi aplanatis filamentisque repentibus, fuscis obsessis, ostiolo papillato, prominulo, atris, latit. 0,2 mill.; ascis subsessilibus, elongatis vel cylindraceo-clavatis, 60–70 ≃ 13–14 octosporis; sporidiis distichis v. tristichis, ovoideo-oblongatis, ad septum constrictis, hyalinis, 18–22 ≃ 7–8 1990

Hab. in caulibus ramulisque emortuis Trifolii pratensis ad Kustiala Fenniæ. — Cum *Didymella Trifolii* (Fuck.) et cum *Gnomonia inæquali* Auersw. similitudinem ostendit maximam, ab illa præprimis sporidiis neutiquam medio constrictis, ab hac sporidiis hyalinis etc. differre videtur.

173. **Sphærella spinarum** Auersw. Myc. Eur. Pyr. p. 9, fig. 107. — Peritheciis atris, nitidulis, epidermidi innatis, sparsis, globulosis, poro simplici pertusis, 100–120 μ. latis; ascis clavatis, sessilibus, 8-sporis, 46 ≃ 7; sporidiis biserialibus, oblongo-fusiformibus, utrinque obtusis, uniseptatis, ad sepimentum non constrictis, hyalinis, 15 ≃ 4. 1991

Hab. in petiolis spinescentibus emortuis Astragali aristati in Germania.

174. **Sphærella Cruciferarum** (Fr.) Sacc. Mich. p. II, 315. *Sph. Cruci-* 1992

ferarum Fr. S. M. II, p. 525. — Sparsa; peritheciis innatis, hemisphæricis, turgidis, lævibus, nigris nitidis, ostiolo simplici pertusis, 70–80 μ. d.; ascis clavatis, breve crasseque stipitatis 40 ≃ 12; sporidiis octonis, distichis oblongo-fusoideis, utrinque obtusiusculis, 15 ≃ 3½, 1-septatis, leniter constrictis, curvulis, 2–4-guttulatis, hyalinis.

Hab. in caulibus, siliquis rarius foliis Erysimi, Lapidii aliisque Cruciferis in Suecia, Britannia, Gallia et Belgio.

175. **Sphærella Compositarum** Auersw. Myc. Eur. Pyr. p. 15, fig. 105. 1993
— Peritheciis nigris, epidermidi innatis, ovatis, acutiusculis, gregariis, 100 μ. latis; ascis ex ovata basi sensim attenuatis, brevissime stipitatis, 8-sporis, 60–70 ≃ 20–28; sporidiis 2–4-serialiter stipatis, oblongis, utrinque rotundatis, uniseptatis, ad sepimentum constrictis, subhyalinis, nubilosis, 24–27 ≃ 7.

Hab. in caulibus siccis Cichorii foliisque Carlinæ acaulis in Germania.

176. **Sphærella præcox** Pass. in Erb. critt. ital. n. 987. — Perithe- 1994
ciis minimis, epidermide innatis, sparsis, atris, cellulis latiusculis subtetragonis contextis; ascis saccato-clavatis, basi breviter incurve stipitatis, 40 ≃ 10, octosporis; sporidiis, subdistichis, ovato-oblongis, bi-locularibus loculo altero latiore, hyalinis, 12 ≃ 5.

Hab. in caulibus vivis Lactucæ salignæ, Collecchio pr. Parma in Italia boreali.

177. **Sphærella Dahliæ** C. et Ell. New Jersey Fungi, Grev. VII, p. 42. 1995
— Sparsa; peritheciis membranaceis, brunneis, epidermide tectis, poro pertusis; ascis clavatis; sporidiis biseriatis, ellipticis, uniseptatis, hyalinis, 12 ≃ 4.

Hab. in caule Dahliæ, socia *Vermicularia*, New Jersey in America boreali.

178. **Sphærella nebulosa** (Pers.) Sacc. Mich. II. p. 56. *Sphæria ne-* 1996
bulosa Pers. Syn. p. 31, Fr. S. M. II, p. 430, saltem p. p. — Peritheciis minimis, 100–130 μ. diam., gregariis, maculas griseas interruptas inæqualiter lineatas efformantibus ostiolis prominulis; ascis crasse clavatis, 50 ≃ 15; sporidiis distichis, 14–16 ≃ 5, ovato-fusoideis, utrinque (plerumque) acutiusculis, 1-septatis, vix constrictis, hyalinis.

Hab. in caulibus siccis Solidaginis in Vogesis Galliæ et Helvetiæ (Mougeot!).

179. **Sphærella trichophila** Karst. Myc. Fenn. II, p. 171. — Peri- 1997
theciis, gregariis, primitus epidermide tectis, dein erumpentibus, su-

biculo fusco filamentoso insidentibus, sphæroideis, vertice sæpe conoideis, setisque spiniformibus, erecto-divergentibus, longiusculis, atris armatis, atris, poro simplici, vix papillari dehiscentibus; ascis sporidiisque *Sphærellæ Tassianæ* (n. 240).

Hab. in caulibus (Saussureæ?) emortuis ad Olenji Lapponiæ rossicæ. — Si setulæ peritheciorum constantes, species inter Venturias rectius adnumeranda.

180. **Sphærella Winteriana** Sacc. *Sph. Winteri* J. Kunze F. Sel. exsicc. n. 64 (absque diagnosi), nec Pass. — Peritheciis dense longe lateque gregariis epidermide velatis, globulosis, prominulis, punctiformibus 150 μ. diam., pertusis, contextu parenchymatico fuligineo; ascis tereti-clavulatis, breve stipitatis, 70–80 ≃ 10, octosporis; sporidiis subdistichis fusoideis, curvis, 15–18 ≃ 4, sub medio constricto-1-septatis, chlorino-hyalinis, 2–4-guttulatis, utrinque subinde minute et obtuse apiculatis. 1998

Hab. in caulibus ramulisque Melampyri nemorosi aridis prope Eisleben Germaniæ. — Diagnosim e speciminibus exoletis erui.

181. **Sphærella Vincetoxici** Sacc. — Peritheciis epidermide velatis punctiformibus, semiglobosis, pertusis, dense gregariis maculasque latas, griseo-fuscas formantibus, subinde mycelio repente subrufescente filiformi connexis; ascis tereti-clavulatis subsessilibus, 40 ≃ 8, aparaphysatis, octosporis; sporidiis subdistichis oblongo-clavulatis, 1-septatis, constrictis, 15 ≃ 4, 4guttulatis, hyalinis. 1999

Hab. in caulibus emortuis Cynanchi Vincetoxici, Conegliano Italiæ borealis. — Var. *folliculorum*: ascis 40–50 ≃ 7–8; sporidiis 10–12 ≃ 3. Cum typo.

182. **Sphærella Gypsophilæ** Fuck. Symb. mycol. p. 101. Thuem. Beitr. Pilz. Lib. n. 767. *Sphæria Gypsophilæ* Lasch. in Kl. Herb. myc. 1050. — Peritheciis punctiformibus, epidermide velatis, nigris; ascis late ellipsoideis, 72 ≃ 42–48, breve stipitatis, hyalinis; sporidiis octonis, longe ellipticis, utrinque acutato-rotundatis, medio septatis, hyalinis, 22 ≃ 13. 2000

Hab. in caulibus capsulisque aridis Gypsophilæ Gmelini, G. muralis et Scleranthi in Germania et in Sibiria asiatica.

183. **Sphærella Euphorbiæ spinosæ** De Not. Recl. Pir. in Comm. II, 487. — Epidermide tecta, sparsa, perexigua, punctiformis, atra; peritheciis subhemisphæricis, coriaceis, osculo vix conspicuo, hiantibus; ascis copiosis, oblongatis, octosporis; paraphysibus nullis; sporidiis oblongatis, bilocularibus, episporio crassiusculo præditis, nucleis hyalino-luteolis, contiguis, deorsum tenuatis. 2001

Hab. in ramis siccis Euphorbiæ spinosæ, Iglesias in insula Sardinia.

184. **Sphærella Salicorniæ** Auersw. Myc. Eur. Pyr. p. 16, fig. 68. — 2002
Peritheciis nigris, epidermide tectis, dein semiliberis, exacte globosis, poro simplici pertusis, sparsis, 160 μ. latis; ascis obovato-cuneatis, sessilibus, 8-sporis, 25 ≃ 10; sporidiis subtriserialiter stipatis, lineari-oblongis, utrinque rotundatis, uniseptatis, ad sepimentum non constrictis, brunneolis, 10 ≃ 2.

Hab. fn caulibus siccis Salicorniæ herbaceæ in Germania.

185. **Sphærella peruviana** Speg. Fung. Arg. Pug. IV, n. 146. — Pe- 2003
ritheciis globulosis, minutissimis, 70–80 μ. d., subepidermicis, sæpe erumpentibus v. cortice secedente liberis, ostiolo vix prominulo ornatis, atris, membranaceis, contextu parenchymatico, olivaceo-fuligineo; ascis ovatis, v. ovato-saccatis, parvulis, 20–24 ≃ 10–12, sursum crassissime tunicatis, deorsum abrupte brevissimeque coarctato-stipitatis, octosporis, aparaphysatis; sporidiis inordinate polystichis, cylindraceo-ellipticis, utrinque obtuse rotundatis, medio 1-septatis, non v. leniter constrictis, 8-12 ≃ 2,5-3,5, minute 4-guttulatis, hyalinis.

Hab. in caulibus putrescentibus dejectis Salicorniæ peruvianæ ad margines dumetosos laculorum subsalsorum in sylva australiore «Tordillo» dicta, in Peru, Amer. austr. — «Forte non satis diversa a *Sph. Salicorniæ*».

186. **Sphærella fuscata** Ell. Bull. Torr. Cl. VIII, 11 Nov. 1881, pag. 2004
125. — Peritheciis, minutis dense gregariis, maculas elongatas nigricantes efficientibus; ascis obovatis, 38-50 ≃ 15-17; sporidiis oblongis, uniseptatis, hinc acutioribus, 17 ≃ 6-6,5, hyalinis.

Hab. in caulibus herbarum Pleasant Valley, Utah, Amer. bor. in montibus (Harkness). — Maculæ 12-15 mill. longæ, 6-7 latæ; perithecia ovato-conica, rugulosa, subepidermica, denique erumpentia et matrice infuscantia.

187. **Sphærella sagedioides** Wint., Kunze Fungi sel. exsic. cent. IV, 2005
n. 323-324 (absque diagnosi). — Peritheciis gregariis epidermide initio velatis, sphæroideo-depressis, 100–110 μ. diam., membranaceis, ostiolo impresso pertusis; ascis tereti-obclavatis, utrinque obtusiusculis, subinde inæquilateralibus, 10–12 ≃ 4, uniseptatis, non constrictis, minute 4-guttulatis, hyalinis.

Hab. in caulibus Dipsaci sylvestris et Dauci Carotæ prope Zürich Helvetiæ, rarius.

188. **Sphærella Umbelliferarum** Auersw. Myc. Eur. Pyr. p. 16, f. 63. 2006
— Peritheciis nigris, epidermidi innatis, depresso-globosis, sublentiformibus, poro simplici pertusis, dense sparsis, numerosissimis, 80–130 μ. latis; ascis obovatis, sessilibus, 8-sporis, 34 ≃ 14; sporidiis 3-4-serialiter stipatis, subcymbiformibus, utrinque obtusatis, rectis v. curvulis, uniseptatis, ad sepimentum non constrictis, hyalinis, 17–20 ≃ 4.

Hab. in caulibus siccis Peucedani Oreoselini in Germania.

189. **Sphærella leptasca** Auersw. in Myc. Eur. Pyr. p. 15, fig. 64, 2007
Mich. I, p. 381. — Peritheciis sparsis, subcutaneis, punctiformibus, globoso-lenticularibus, 80–90 μ. diam., poro pertusis dein erumpentibus; ascis cylindraceis, 40–50 ≃ 6, breviter stipitatis, aparaphysatis, octosporis; sporidiis oblique 1-stichis vel 2-stichis, oblongo-fusoideis. constricto-1-septatis, 11–12 ≃ 2½–3, 4-guttulatis, hyalinis. — Spermogonium sistit *Septoriam leptideam* Sacc.

Hab. in caulibus putrescentibus Torilis Anthrisci aliarumque Umbelliferarum in Germania et Italia boreali.

190. **Sphærella sciadophila** Pass. Micr. ital. diagn. n. 4. — Perithe- 2008
ciis sparsis vel subaggregatis, subglobosis, tectis, tandem denudatis, atra, cellulis minutis subtrapezoideis contextis; ascis oblongis, basi ventricosis vel subclavatis, abrupte brevissime, stipitatis, rectis vel curvulis, 60–75 ≃ 15–20; sporidiis octonis subtristichis oblongo-navicularibus, medio septatis non constrictis, apicibus rotundatis, loculo altero paullo angustiore sublongiore, perfecte hyalinis, 15–18 ≃ 5,

Hab. in radiis aridis umbellarum Chærophylli temuli L. Parmæ, Ital. bor. — Accedit forma spermatifera, peritheciis similibus: spermatiis subcylindricis hyalinis, 5 ≃ 1–1½. — A *Sphærella Umbelliferarum* Rabh Myc. Eur. p. 15, t. 5, f. 63, ascorum forma et longitudine præcipue recedit.

191. **Sphærella rubella** Niessl et Schröt. Hedw. 1877, p. 118. — My- 2009
celio effuso, rubello, corticis lignique parenchyma colore ex rubello atque sanguineo vel fuscescente tingens, maculas extensas plus minus determinatas formans; peritheciis minutis, dense gregariis, subglobosis. tectis, vertice conico, erumpentibus, ostiolo papillæformi, atris, coriaceo-membranaceis; ascis fasciculatis, clavatis 46–60 ≃ 10–12; sporidiis farcte distichis, ovato-oblongis vel subclavatis, medio septatis et valde constrictis, hyalinis, 12–16 ≃ 4–5.

Hab. in caulibus Angelicæ sylvestris prope Rastatt Germaniæ (Schröter). — Perithecia fere pleosporoidea.

192. **Sphærella Mougeotiana** Sacc. Michel. II, p. 57, *Sphæropsis Atomus* Lév. (?) Roum. Fungi Gall. n. 388. — Maculis foliorum arescendo expallentibus vagis; peritheciis punctiformibus, hypophyllis, tectis; ascis cylindraceis, breve stipitatis, 50–60 ≃ 8, apice obtusiusculis, aparaphysatis (?), octosporis; sporidiis distichis fusoideis, utrinque obtusiusculis, 14 ≃ 3, rectis, 1-septatis (vel ob plasma 4-partitum, simulate 3-septatis) hyalinis. 2010

Hab. in foliis Rubiæ peregrinæ in Vogesis (Mougeot).

193. **Sphærella peregrina** Cooke Grev. VII, p. 98. — Sparsa, cladophyllogena, subinde dense gregaria; peritheciis punctiformibus, papillatis; ascis crasse clavatis; sporidiis stipatis, breve fusoideis, uniseptatis, hyalinis, 15–18 ≃ 4. 2011

Hab. in caulibus foliisque Rubiæ peregrinæ, Symond 's Yat, prope Ross Britanniæ. — A *Sph. Mougeotiana* Sacc. differre videtur ascis crasse clavatis, sporidiis majoribus etc. An satis?

194. **Sphærella minor** Karst. Myc. Fenn. II, pag. 171. — Peritheciis epidermidi innatis, laxe gregariis, fibrillis innatis, serpentibus, subradiantibus, fuscescentibus junctis, maculas cinerascentes formantibus, sphæroideis, poro simplici pertusis, atris, 60–70 μ. lat.; ascis sessilibus, ovoideo-ellipsoideis vel ovoideo-sphæroideis, 18–25 ≃ 12–14; sporidiis octonis, conglobatis, ovoideo-oblongatis, medio uniseptatis, ad sepimentum haud vel vix constrictis, chlorino-hyalinis, 11–12 ≃ 4. 2012

Hab. in caulibus Epilobii angustifolii emortuis prope oppidum Kola Lapponiæ rossicæ. — *Sphærellæ Tassiancæ* proxima et affinis, sed omnibus partibus minor. — Var. *Galii* (Michel. I, 381, Fungi ital. t. 388): ascis obclavato-ovoideis, 20–25 ≃ 14, brevissime crasse stipitatis, apice breve obtuseque attenuatis, 8sporis, aparaphysatis, sporidiis tristichis, oblongo-clavulatis, 8–10 ≃ 3, 1-septatis, vix constrictis, hyalinis. — In caule Galii sylvatici in Ital. bor.

195. **Sphærella Hyperici** Auersw. Myc. Eur. p. 14, fig. 60, Karst. M. Fenn. II, 177. — Peritheciis nigris, epidermidi innatis, globulosis, poro simplici pertusis, dense sparsis, imo hinc inde connatis, 48–58 μ. latis; ascis oblongis, breviter stipitatis, 8-sporis, 40–50 ≃ 7–8; sporidiis 2–3-serialiter stipatis, elongato-oblongis, utrinque rotundatis, ad sepimentum non constrictis, hyalinis, 12–14 ≃ 3–4. 2013

Hab. in caulibus emortuis Hyperici perforati in Germania et in Fennia.

196. **Sphærella Gentianæ** Niessl Neue Kernp. p. 128. — Peritheciis laxe gregariis, globosis, minutis, tectis, vix papillatis, submembranaceis; ascis oblongo-clavatis plerumque inferne amplis, stipite brevi, 8sporis, 29–32 ≃ 8–12; sporidiis stipatis, cuneatis vel clavatis, inferne attenuatis, rectis vel paulo curvatis, medio septatis, parum constrictis, guttulatis, hyalinis 10 ≃ 2–3. 2014

Hab. in caulibus siccis Gentianæ asclepiadeæ prope Gratz Austriæ.

197. **Sphærella Galatea** Sacc. Fungi Ven. Ser. II, p. 304. — Peritheciis secus caulem hinc inde gregariis, atris, punctiformibus, 70–75 μ. diam., globoso-lenticularibus, epidermide tenuiter tumefacta velatis, ostiolo exiguo impresso; ascis cylindraceo-clavatis, subsessilibus, 35 ≃ 6–7, 8sporis; sporidiis oblique monostichis vel subdistichis, oblongis, 8–11 ≃ $2^1/_2$–3, loculo infero angustiore, constricto-1-septatis, eguttulatis, hyalinis. 2015

Hab. in caulibus aridis Valerianæ officinalis in sylva Montello, Treviso, Ital. bor., rarius. — *Sph. leptascæ* Auersw. et *Sph. caulicolæ* Karst. cognata, sed satis distincta.

198. **Sphærella morphæa** Sacc. Mich. I, 34. — Peritheciis gregariis, punctiformibus e globoso lenticularibus, innato-erumpentibus, $^1/_{10}$ mill. diam., ostiolo plano pertuso; perithecii contextu laxe celluloso fuligineo; ascis clavatis, tortuosis, subsessilibus, 70 ≃ 12–13, aparaphysatis, octosporis; sporidiis subdistichis ovato-fusoideis, 15–20 ≃ 6–$7^1/_2$, rectis curvulisque, 1-septatis, valde constrictis, 4-guttulatis, granulosis, hyalinis. 2016

Hab. in stigmate capsularum Papaveris somniferi dejectarum, Conegliano, Ital. bor. — Cum qua specie comparari possit, ignoro. Certe *Sph. arthopyrenides,* in Papavere quoque obvia longe differt.

199. **Sphærella arthopyrenioideis** Auersw. Myc. Eur. p. 15, fig. 55. — Peritheciis nigris, epidermidi innatis, depresso-globosis, poro simplici pertusis, dense sparsis, 60–120 μ. latis; ascis obovatis, sessilibus, 8-sporis, 38 ≃ 18; sporidiis subtriserialiter stipatis, obovato-oblongis, utrinque rotundatis, uniseptatis, ad sepimentum non constrictis, pallidis, nubilosis, 14 ≃ 4–5. 2017

Hab. in caulibus siccis Papaveris Burseri in Alpibus Styriæ.

200. **Sphærella Cannabis** Wint. Hedw. 1872, p. 145. — Peritheciis nigris, epidermidi innatis, depresso-globosis, dense gregariis vel basi congregatis, poro simplici pertusis, 150–180 μ.; ascis ample 2018

cylindraceis, sessilibus, 8-sporis, 50-60 ≃ 10; sporidiis subdistichis, fusiformi-oblongis, utrinque attenuatis, fere sub-acutis, inæqualiter bilocularibus, uniseptatis ad septum constrictis, pallide viridulis, 14 ≃ 5.

Hab. in caulibus dejectis Cannabis sativæ prope Seis Tyroliæ (HAUSMANN).

201. **Sphærella caulicola** Karst. Myc. Fenn. II, p. 169. — Peritheciis 2019
laxe gregariis, subiculo filamentoso fusco insidentibus, per epidermidem erumpentibus, sphæroideis, sæpe vertice umbonatis, poro simplici pertusis, atris, 0,2 mill. lat.; ascis fasciculatis, numerosissimis, cylindraceo-clavatis, 54 ≃ 8 octosporis; sporidiis distichis, ovoideo-oblongatis, medio uniseptatis, hyalinis, 10-11 ≃ 3-3,5.

Hab. in caulibus Galeopsidis versicoloris emortuis in Fennia australi et media. — Quoque ad caules Epilobii angustifolii Umbelliferarumque ad Mare-Glaciale lecta est hæc species, sporidiis vero minoribus, 8-10 ≃ 2-3, prædita. — Facillime dignota species. Maculæ fuscescentes, forma variæ, quibus insident perithecia majuscula, nitidula, sat prominula, in caule hinc inde dispersæ.

202. **Sphærella Micromeriæ** Pass. in Relaz. Botan. Bullettino del Club 2020
Alpino Italiano, vol. VII, n. 21 et Diagn. nuov. funghi n. 7. — Peritheciis subcorticalibus erumpentibus, globoso-conicis, atris, ostiolo punctiformi; ascis brevibus, latiusculis, subclavatis, basi incurvis, subsessilibus, 8sporis; sporidiis inordinatis, subnaviculari-bus, septatis, ad septum vix constrictis, loculo altero ampliore, hyalinis; paraphysibus nullis.

Hab. in caulibus siccis Micromeriæ tenuifoliæ, Chieti Italiæ merid. — Perithecia crassiusculá et prominula ligno insident, non parenchymati corticali; et cortice elapso, in ligno denudato perdurant.

203. **Sphærella polygramma** (Fr.) Niessl Neue Kernp. p. 87, *Sphæria* 1021
polygramma Fr. S. M. II, p. 432 p. p.? — Peritheciis minutis, seriatis, confertis, subconfluentibus, globosis, tectis, obsure papillatis, atro-fuscis, membranaceis; ascis clavatis, subsessilibus, 8sporis, 30 ≃ 7-8; sporidiis fusiformibus vel paulo clavatis, rectis, curvatisve, medio septatis, vix constrictis, hyalinis 8-9 ≃ 2 (an maturis?).

Hab. in caulibus, qui fusco-maculosi fiunt, Ballotæ nigræ prope Brünn Moraviæ. — Forte *Phoma polygramma* est ejusdem spermogonium.

II. *In Monocotyledoneis parasiticæ.*

204. **Sphærella Schœnoprasi** Auersw. Myc. Eur. Syn. Pyr. pag. 19, t. 5, f. 70, *Gnomonia Schœnoprasi* (Rabh.) Ces. et De Not. Schema p. 232, *Vermicularia Schœnoprasi* Rabh. Fungi Eur. II, 346. — Peritheciis ut plurimum epiphyllis, dense gregariis, maculas magnas griseas formantibus, primitus epidermide tectis, dein eam vertice perforantibus, depresso-sphæroideis, in ostiolum breviter conoideum acuminatis, atris, 150–200 μ. lat.; ascis brevissime pedicellatis, ovoideo-oblongatis, 70–82 ≃ 18–20, octosporis; sporidiis infra distichis, supra monostichis, ovoideo-oblongatis vel suboblongatis, uniseptatis, ad septum leviter constrictis, subhyalinis, 20–26 ≃ 6–8. — Spermogonia (*Vermicularia Schœnoprasi* Rabh. p. p.) peritheciis commixta, gregaria, erumpentia, ovalia vel ellipsoidea vel suborbicularia, obtuse conoidea, astoma, demum basi secedentia, atra, vertice pilis concoloribus, sparsis obsessa, minuta; spermatiis fusoideo-bacillaribus, curvatis, hyalinis, 16–20 ≃ 2–3. 2022

Hab. in foliis languidis Allii Porri, A. ochroleuci, A. Schœnoprasi etc. in Germania, Gallia, Italia, Fennia.

205. **Sphærella allicina** (Fr.) Auersw. Myc. Eur. Pyr. 19, fig. 69, *Sphæria allicina* Fr. S. M. II, 437. — Peritheciis epidermide griseo-fusca tectis, globosis confertis, subpapillatis nitidis, prominulis; ascis subclavatis, sessilibus, 55–58 ≃ 14, octosporis; sporidiis distichis oblongis utrinque rotundatis, subrectis, uniseptatis, non constsictis, hyalinis, 16 ≃ 4–5. 2023

Hab. in foliis scapisque Alliorum et forte quoque Platantheræ in Suecia, Germania, Belgio, Britannia, Lusitania. — Macula amphigena oritur ex epidermide folii, peritheciorum greges tegente, cinerascente. Perithecia genuina, mediæ magnitudinis, nunc confluentia, nunc sparsa, in juniori ætate astoma.

206. **Sphærella Cinxia** Sacc. Fungi Ven. Ser. II, p. 403. — Maculis nullis; peritheciis amphigenis, sparsis, globoso-lenticularibus, atris, 120 μ. diam., ostiolo impresso tenuiter pertuso; ascis breve crasseque stipitatis cylindraceo-clavatis, tunica crassiuscula, 55 ≃ 10–11, 8sporis; sporidiis inordinate distichis, ovoideis, didymis, loculo altero crassiore, 12 ≃ 5½–6, hyalinis, eguttulatis. 2024

Hab. in foliis putrescentibus Lilii candidi prope Treviso Italiæ borealis.

207. **Sphærella Maturna** Sacc. Fungi Ven. Ser. II, p. 303. — Maculis 2025
nullis; peritheciis amphigenis, sparsis, punctiformibus, 100 μ. diam., lenticularibus, ostiolo impresso pertusis, hyphis ramulosis repentibus fuligineis basi cinctis; ascis minutissimis, 35 ≃ 6–7, cylindraceo-clavulatis, curvulis, dense fasciculatis, 8sporis; sporidiis inordinate distichis, oblongo-fusoideis, constricto-didymis, 44 ≃ 3–3 1/3, loculo altero angustiore, 4-guttulatis, hyalinis.

Hab. in foliis putrescentibus Lilii candidi, Selva, Treviso, Italia bor., socia et forte formam spermogonicam sistens: *Phyllosticta liliicola* Sacc.; peritheciis globulosis, pertusis, punctiformibus spermatia ovoidea, 10 ≃ 3, 2guttulata, hyalina foventibus.

208. **Sphærella brunneola** (Fr.) Cooke Handb. p. 922, Karst. M. Fenn. 2026
II, 180, *Sphæria brunneola* Fr. S. M. II, p. 526, *Ascospora brunneola* Fr. Summa Veg. p. 425. — Peritheciis epiphyllis, gregariis, parenchymati innatis, utrinque prominulis, filamentis in parenchymate repentibus, fuscis maculas oblongatas, brunneas, variæ magnitudinis formantibus, sphæroideis vel siccitate sphæroideo-depressis, poro pertusis, 80–90 μ. diam.; ascis subsessilibus, fusoideo-elongatis, 55 ≃ 10, octosporis; sporidiis distichis, ovoideo-elongatis, paullo extra medium uniseptatis, rectis, ad septum vix constrictis, hyalinis, 17–20 ≃ 4. — Spermogonia (*Asteroma subradians* Fr.) peritheciis immixta, erumpentia, sphæroidea, dein ore lato aperta, atra, peritheciis multo majora; spermatiis filiformibus, inarticulatis, hyalinis, 75–105 ≃ 2.

Hab. in foliis Convallariæ majalis (an et Epipactidis) in Suecia, Britannia, Fennia, Germania, Italia, Gallia, rarius fructificans.

209. **Sphærella Asteroma** (Fr.) Karst. Myc. Fenn. II, 181, *Dothidea* 2027
Asteroma Fr. S. M. II, 560, *Ascospora Asteroma* Fr. Fuck., *Sphærella subradians* Auersw. Myc. Eur. Pyr. p. 19, fig. 77. — Peritheciis epiphyllis, gregariis, parenchymati innatis, utrinque prominentibus, filamentis in folii parenchymate repentibus, fuscis, maculas fuscas vel fuliginoso-nigrescentes, oblongatas, variæ magnitudinis formantibus, sphæroideis, poro simplici pertusis, 60–80 μ. diam.; ascis subsessilibus, oblongatis, 32–35 ≃ 7–9 octosporis; sporidiis distichis, ovoideo-oblongatis, fere medio uniseptatis, ad septum leviter constrictis, hyalinis, 9–12 ≃ 3–4. — Spermogonia? (*Asteroma* [Cambosira] *reticulata* Fr.) epiphylla, prominentia, subsphæroidea, atra, fibrillis liberis, serpentibus juncta, exigua.

Hab. in foliis emortuis caulibusque Convallariæ multiflo-

ræ, Polygonati, verticillatæ et Majanthemi in Suecia Germania, Belgio, Gallia, Fennia, Italia, Kamschatka.

210. **Sphærella smilacicola** (Schw.) Cooke in Grev., *Sph.* (Depazea) *smilacicola* Schw. Syn. Amer. bor. n. 1825. — Macula sinuosa v. subquadrata impressa, rufo-fusca nigro-marginata; peritheciis punctiformibus, innatis, subconicis, nigris, sparsis, 90 μ. diam. poro pertusis; «ascis fasciculatis clavulatis, brevissime stipitatis, 40–50 ≃ 10, octosporis; sporidiis oblongo-teretiusculis, utrinque rotundatis, curvulis, 1-septatis, non constrictis, hyalinis, 14–15 ≃ 3». 2028

Hab. in foliis Smilacis rotundifoliæ etc. Bethlehm et Aiken Amer. bor.

211. **Sphærella Pales** Sacc. Fungi Ven. Ser. II, p. 305. — Peritheciis secus caulem laxe sparsis, epidermide velatis, punctiformibus, 100 μ. diam., lenticularibus, atris, ostiolo minuto umbilicato; ascis fasciculatis, oblongo-clavatis, 50 ≃ 14, subsessilibus, 8sporis; sporidiis distichis, oblongis, didymis, medio constrictis, 18–20 ≃ 7, loculis quandoque inæqualibus, 4guttulatis, hyalinis. 2029

Hab. in caulibus exsiccatis Hemerocallidis fulvæ, Selva Treviso, Italia bor.

212. **Sphærella Agapanthi** Kalch. et Cooke Grev. IX, p. 31. — Maculis magnis, irregularibus, nigrescentibus; peritheciis numerosissimis, membranaceis, applanatis, fuscis; mycelio fusco, radiato, circumdatis; ascis obclavatis; sporidiis ellipticis, utrinque rotundatis, uniseptatis, hyalinis 15–18 ≃ 3. 2030

Hab. in foliis Agapanthi in Africa australi.

213. **Sphærella Iridis** Auersw. Myc. Eur. Pyr. p. 18, fig. 11. — Peritheciis amphigenis, nigris, epidermide primo tectis, dein semiliberis, sparsis, depresso-globosis, poro simplici minuto pertusis, 120–160 μ. latis; ascis obovato-oblongis, in stipitem brevissimum attenuatis, 8sporis, 50–58 ≃ 17; sporidiis subtriseriatis, oblongis, utrinque rotundatis, rectis, uniseptatis, ad sepimentum non constrictis, episporio crasso, 17 ≃ 4–5. 2031

Hab. in foliis siccis Iridis pumilæ in Germania et Iridis Pseudacori in Britannia.

214. **Sphæria Caladii** (Schw.) Sacc. *Depazea Caladii* Schw., B. et C. Exot. Fungi Schw. p. 291. — Maculis latis annulari-multicoloribus, centro pallidis; peritheciis congestis; ascis brevibus; sporidiis hyalinis oblongis, medio uniseptatis, lenissime curvulis, 10 μ. longis. 2032

Hab. in foliis Caladii cujusdam in Surinam. — Maculæ 10–25 mill. latæ.

215. **Sphærella Maydis** Pass. in Rabh Fungi Eur. n. 1851 et Just Bot. Iahresb. 1874, p. 319, Sacc. Fungi ital. t. 383. — Peritheciis amphigenis, nigris, epidermidem vix perforantibus, in area translucida folii subgregariis vel sparsis; ascis oblongis subclavatis vel sæpius basi plus minus ventricosis, 35–55 ≃ $7^1/_2$–$8^1/_2$; sporidiis subtristichis oblongis, septatis, vix constrictis, 14–16 ≃ $3^1/_2$–4, hyalinis, loculis 1-2 guttulatis. 2033

Hab. in foliis emortuis et putrescentibus Zeæ Maydis in agro Parmensi et Tarvisino Italiæ. — A *Sph. Zeæ* Sacc. et *Sph. paulula* Cooke tute distincta.

216. **Sphærella paulula** Cooke. Rav. Fung. Amer. Cent. III. et in Grev. VI, p. 146. — Sparsa; peritheciis minutis, globosis, semiliberis, 70 μ. diam., ascis clavatis, 20 μ. long.; sporidiis ellipticis, demum uniseptatis 5 μ. longis. 2034

Hab. in vaginis Zeæ Maydis, Gainesville, Florida Americæ borealis. — E minimis generis speciebus, subinde a *Cladosporio*, quocum habitat, velata.

217. **Sphærella Zeæ** Sacc. Mich. I, 377, F. it. t. 384. — Maculis in foliis adhuc vivis irregularibus arescendo candicantibus, ochraceo-marginatis; peritheciis in media macula gregariis numerosis punctiformibus lenticularibus, pertusis, 120–130 μ. diam.; contextu laxe parenchymatico; ascis cylindraceo-clavatis, deorsum acutatis, apice obtusiusculis, 80 ≃ 14, octosporis, aparaphysatis; sporidiis distichis, oblongo-fusoideis, constricto-1-septatis, curvulis utrinque obtusiusculis, 20 ≃ 7–8, loculo superiore paulo crassiore, 4- (raro pluri-) guttulatis hyalinis. 2035

Hab. in foliis adhuc vivis Zeæ giganteæ (Caragua) cultæ, Vittorio in Italia boreali. — Ascis sporidiisque fere duplo majoribus a *Sphærella Maydis* Pass. recedit.

218. **Sphærella disseminata** De Not. et Carest. Erb. cr. it. Ser. II, n. 391 et N. G. B. Ital. 1871, p. 197. — Peritheciis sparsis subsphæroideis, osculo rotundo hiantibus; ascis grandibus crasse clavatis, 8-sporis, paraphysibus nullis; sporidiis ovoideo-oblongis, sæpe curvulis, bilocularibus, hyalinis. 2036

Hab. in Alagna, Valsesia Ital. bor. in foliis graminis cujusdam (Carestia). — Affinis *Sphærella Tassiancæ* De Not. Socia adest *Septoria*.

219. **Sphærella chlouna** Cooke Grevill. V, p. 121. — Peritheciis gregariis v. sparsis, minutis, epidermidem perforantibus, ostiolo amplo; 2037

ascis clavatis; sporidiis distichis, fusoideo-teretiusculis, uniseptatis, 18 ≃ 3, hyalinis.

Hab. in Phalaride arundinacea, Shere Britanniæ. — A *Sphærella ignobili* Auersw. sporidiorum forma et magnitudine mox distinguenda.

220. **Sphærella Ceres** Sacc. Fungi Ven. Ser. II, p. 302. — Maculis 2038
sinuosis variis expallentibus, zona sanguinea cinctis; peritheciis sparsis, punctiformibus, 80 μ. diam., lenticularibus, ostiolo impresso pertusis; ascis fasciculatis, oblongo-cylindraceis, 50 ≃ 15, basi breve crasseque stipitatis, 8sporis; sporidiis oblongo-ovoideis, constricto-1-septatis, loculo altero subcrassiore, rectis curvulisve, 20 ≃ 7, 4-guttulatis, hyalinis. — Status pycnidicus *Ascochytam Sorghi* Sacc. sistit.

Hab. in foliis languescentibus Sorghi vulgaris, prope Treviso Italiæ borealis.

221. **Sphærella anarithma** (B. et Br.) Cooke Handb. n. 2771 *Sphæ-* 2039
ria anarithma B. et Br. Ann N H. n. 893, t. 11, fig. 37. — Peritheciis sparsis, minutis, globosis, epidermide ostiolo papillulato pertusa velatis; ascis clavatis, octosporis; sporidiis sublanceolatis, 1-septatis, profunde constrictis, hyalinis, 30 μ. longis.

Hab. in foliis exsiccatis Airæ cæspitosæ et Sorghi in Britannia, Italia et Austria.

222. **Sphærella badensis** Niessl Neue Kernp. p. 129. — Amphigena; 2040
peritheciis minutissimis, punctiformibus, dense confertis, subconfluentibus, effusis, globosis, erumpentibus, obscure papillatis, membranaceis, atris; ascis oblongis vel ovoideis, obliquis, sessilibus 44 ≃ 14-18; sporidiis farctis, 1-3-stichis, octonis, elongato-oblongis, supra medium septatis, pauloque constrictis, inferne attenuatis, rectis, 4-nucleatis, dilute virescentibus, 16-18 ≃ 4-6.

Hab. in foliis demortuis Poæ badensis prope Baden Germaniæ.

223. **Sphærella Agrostidis** (Cast.) Auersw. Myc. Eur. Pyr. pag. 17, 2041
fig. 79, *Sph. Agrostidis* Cast. Cat. Mars. *Sph. Graminis* Mont. p. p. *Phyllachora Agrostidis* Fuck. Symb. myc. p. 217. — Peritheciis epiphyllis, nigris, parenchymati folii innatis, congestis et connatis, acervulos rotundatos oblongosve convexos, impresso-punctulatos, $^1/_4$-1 mill. latos formantibus, globulosis, poro simplici pertusis, 100 μ. fere latis; ascis e basi ampliata paululum attenuatis, brevissime stipitatis, 8-sporis, 55-62 ≃ 14-15; sporidiis triserialiter stipatis, cuneato-oblongis utrinque rotundatis, rectis, uniseptatis,

ad sepimentum non constrictis, cellula superiore quam inferiore paulo breviore, subhyalinis, 21 ≃ 5.

Hab. in foliis fere emortuis Agrostidis stoloniferæ et caninæ in Gallia et Germania.

224. **Sphærella recutita** (Fr.) Cooke Handb. n. 2772 Fuck. Symb. App. II, p. 21 (nec Symb. p. 107). *Sph. recutita* Fr. S. M. II, p. 524. — Aggregata, hyphophylla, innato-prominula, minutissima, poro pertusa, nigra, strias longissimas parallelas densas exhibens; ascis fasciculatis oblongis, sursum acutioribus, subcurvulis, 36 ≃ 12; sporidiis octonis oblongo-fusoideis, rectis, medio constricto-1-septatis (an denique 3-septatis?) 12–14 ≃ 4–5, 4-guttulatis, hyalinis. 2042

Hab. in foliis Dactylidis glomeratæ (et Caricum) in Britannia, Suecia, Germania. — Perithecia ita densa ut maculas griseas imitentur totum fere hypophyllum occupantes. Si denique sporidia 3-septata, an *Leptosphæria*?

225. **Sphærella Malinverniana** Catt. in Arch. Bot. Critt. II, 127, t. XIV, f. 6. — Peritheciis hypophyllis, atris, epidermide innatis, plus minus dense sparsis, globosis, poro simplici pertusis, 100–150 μ. latis; ascis e basi ovata, apicem versus attenuatis, subsessilibus, 8sporis, 60–75 ≃ 20–25; sporidiis 2–3-serialibus obovato-oblongis, utrinque rotundatis, uniseptatis, ad sepimentum constrictis, hyalinis, 20 ≃ 10. 2043

Hab. in foliis languidis Oryzæ sativæ in Italia boreali.

226. **Sphærella Oryzæ** (Catt.) Sacc. *Pleospora Oryzæ* Catt. Micet. Riso p. 11 et Arch. trienn. I, 181, t. XV–XVI. — Peritheciis hinc inde gregariis, globulosis, parenchymate innatis, epidermide tectis, minutis 70–80 μ. diam., sæpe hyphis mycelicis fuligineis v. subhyalinis repentibus, ramosis septatis interpositis, apice obtusiusculis poro pertusis; ascis elongato-clavatis, octosporis aparaphysatis, 47–50 ≃ 8; sporidiis subdistichis, fusoideis, subhyalinis, 14–15 ≃ 4–4,2, 1-septatis, non constrictis. 2044

Hab. in pedunculis foliisque Oryzæ sativæ, cui affert morbum *carolo bianco e nero* dictum, in Italia boreali.

227. **Sphærella phyllachoroides** Sacc. Fung. Ven. Ser. II, 304. — Maculis nullis; peritheciis amphigenis, atris, foliorum parenchymate immersis, in acervulos elongatos phyllachoriformes, epidermide tumidula nigrificata velatos hinc inde subparallele aggregatis, sphæroideis, ostiolis minutissimis vix prominulis: ascis cylindraceo-clavatis, 50–60 ≃ 10–11, basi brevissime noduloso-stipitatis, pseudoparaphysibus guttulatis quandoque obvallatis, 8sporis; sporidiis oblique monostichis vel distichis, ovoideo-oblongis, didymis 10- 2045

$12 \simeq 4^1/_2$, medio vix constrictis, rectis curvulisve, 2-4-guttulatis, hyalinis.

Hab. in foliis aridis graminum (Agrostidis?) in sylva Montello (Treviso), Italiæ borealis. — Affinis videtur *Phyllachoræ helveticæ* Fuck. sed multo magis *Sphærellæ lineolatæ* (Rob.) De Not. (Sacc. Myc. Ven. p. 95, t. IX, f. 15-17) a qua sporidiis multo brevioribus præ ceteris differt.

228. **Sphærella leptopleura** De Not. Recl. Pyr. Comm. II, p. 488. — Peritheciis epidermide tectis ad foliorum longitudinem seriatis, discretis, vel per paria subinde arcte contiguis, rotundatis, membranaceis tenuibus, ostiolo latiusculo dehiscentibus; ascis confertis, tereti-clavulatis, octosporis; paraphysibus nullis; sporidiis oblongis rectis, vel curvulis, obscure bilocularibus, vel simplicibus, hyalinis. 2046

Hab. in vaginis Secalis Cerealis, Rovegro, Lago Maggiore Italiæ borealis.

229. **Sphærella ignobilis** Auersw. Myc. Eur. Pyr. p. 17. — Peritheciis hypophyllis, nigris, in parenchymate folii nidulantibus, epidermide vix perforantibus, sparsis, globosis, poro simplici perforatis, 100-125 μ. latis; ascis numerosissimis, clavato-cylindricis, subsessilibus, curvulis, 8-sporis, $50 \simeq 6$-8; sporidiis imbricato-uniserialibus aut biserialibus, pallidis, granuloso-nubilosis, cuneato-oblongis, utrinque rotundatis, uniseptatis, ad sepimentum vix constrictis, $10\text{-}12 \simeq 4$. 2047

Hab. in foliis exsiccatis Glyceriæ spectabilis et Agrostidis in Germania et Italia boreali.

230. **Sphærella graminicola** Fuck. Symb. Myc. p. 101. — Peritheciis epiphyllis, aggregatis, innato-prominulis, minimis, nigris, foliorum totam superficiem occupantibus, ostiolis papillatis; ascis oblongis, seu ovato-oblongis, 8sporis; sporidiis oblongis, non clavatis, utrinque obtusis, didymis, hyalinis. 2048

Hab. in foliis exsiccatis Tritici repentis, rarius, prope Œstrich Germaniæ.

231. **Sphærella perexigua** Karst. Fungi Spetsb. n. 54 (nec Lév. quæ ad *Sph. punctiformem* spectat). — Peritheciis sparsis, innato-prominulis, sphæroideis vel sphæroideo-depressis, demum ostiolo exiguo hiantibus, glabris, atris, 50-75 μ. latit.; ascis ovoideo-oblongatis, $30\text{-}35 \simeq 12$, octosporis; sporidiis conglobatis, fusoideo-elongatis, leviter curvulis vel rectis, guttulis 2, rarius 4 præditis vel spurie tenuter uniseptatis, hyalinis $16\text{-}20 \simeq 2,5\text{-}3,5$; paraphysibus nullis. 2049

Hab. in foliis Junci biglumis siccis ad Adventbay et Nordfjorden, Spitzberg.

232. **Sphærella Najas** Sacc. Fungi Ven. Ser. II, p. 304. — Maculis 2050
nullis; peritheciis sparsis, minutis, punctiformibus, 120 μ. diam., lenticularibus, atris, contextu laxo, fuligineo, ostiolo impresso pertusis; ascis fasciculatis, clavatis, 50 ≃ 12–14, 8sporis; sporidiis distichis, oblongis, constricto-didymis, 16 ≃ 6, loculo altero crassiore, 4guttulatis, hyalinis.

Hab. in glumis aridis Junci lamprocarpi, Treviso, in Italia boreali.

233. **Sphærella longissima** Fuck. Symb. Myc. p. 107. *Sphærella Bromi* 2051
Auersw. Myc. Eur. Pyr. p. 17, fig. 78. — Peritheciis minutissimis, 60–80 μ. d., dense dispositis et strias longissimas, $^1/_4$ lineam latas, atras formantibus, dein ore rotundo pertusis; ascis oblongo-clavatis, 34 ≃ 7, 8sporis; sporidiis oblongis, medio parum constrictis, didymis, hyalinis, 10 ≃ 3.

Hab. in foliis adhuc vivis v. languidis Bromi asperi pr. Œstrich Germaniæ.

234. **Sphærella Luzulæ** Cooke in Grev. VI, p. 31. *Hendersonia Ty-* 2052
phoidearum Thüm. F. Austr. n. 785. — Peritheciis velatis, punctiformibus, sparsis; ascis clavato-cylindricis; sporidiis biseriatis cylindraceis, 4-nucleatis, dein uniseptatis, hyalinis.

Hab. in foliis Luzulæ albidæ in Austria.

235. **Sphærella Sirpi-lacustris** Auersw. Myc. Eur. Pyr. p. 18, fig. 73. 2053
— Peritheciis carbonaceo-membranaceis, subfragilibus, nigris, epidermidi innatis, sparsis, depresso-globosis, poro simplici perforatis, 150–180 μ. latis; ascis clavato-oblongis, in stipitem brevem attenuatis, 8-sporis, 55–58 ≃ 14; sporidiis 3-serialiter stipatis, oblongo-fusiformibus, utrinque obtusatis, curvulis, uniseptatis, ad sepimentum non constrictis, subhyalinis, 24–27 ≃ 4–5.

Hab. in calamis Sirpi lacustris emortuis in Germania, Britannia et Italia.

236. **Sphærella Thais** Sacc. Fungi Ven. Ser. II, p. 305. — Perithe- 2054
ciis hinc inde secus calamos dense gregariis maculasque nebulosas elongatas efficientibus, globulosis, punctiformibus, 70–80 μ. d., erumpentibus, atris, ostiolo impresso pertusis, hyphis parcis brevissimis basi cinctis; ascis obovatis, apice rotundatis, basi brevissime attenuatis, 35 ≃ 16, raro 50 ≃ 14, 8sporis; sporidiis inordinate tristichis, oblongis, didymis, septo subconstrictis, loculo intero paulo angustiore, 14–15 ≃ 4, minute 4-guttulatis, hyalinis.

Hab. in calamis Scirpi mucronati v. triquetri putrescentibus ad lacum Benacum (Peschiera), Ital. bor. — A *Sphærella Scirpi lacustris* Auersw. rite distincta.

237. **Sphærella pusilla** Auersw. Myc. Eur. Pyr. p. 17, fig. 115. — 2055
Peritheciis epiphyllis, nigris, epidermide innatis, dense sparsis, globosis, poro simplici pertusis, 50–70 μ. latis; ascis ovato-oblongis, subsessilibus, 8-sporis, 40 ≃ 12–14; sporidiis 3–4-serialiter stipatis, oblongo-fusiformibus, apicem versus paululum ampliatis, utrinque obtusatis, subrectis, uniseptatis, ad sepimentum constrictis, 4–6-nucleolatis, subhyalinis, 22–24 ≃ 3–4.

Hab. in foliis siccis Caricis tenuis et C. acutæ in Germania et Fennia. — Videretur *Sphærella Tassiana* deminuta.

238. **Sphærella saxatilis** Schröt. Nord. Pilze p. 12. — Peritheciis sub- 2056
sparsis, sphæroideis, 65–75 μ. diam., innatis, ostiolo depresso, parum distincto; contextu fuligineo tenui; ascis fasciculatis, parcis, ovoideo-saccatis, infra medium crassioribus, 30–35 ≃ 15–17, octosporis; sporidiis conglobatis, fusoideis, 17–20 ≃ 4–5, medio uniseptatis, non constrictis.

Hab. in foliis vetustis Caricis saxatilis in Lapponia Suecica (Wichura).

239. **Sphærella Wichuriana** Schröt. Nord. Pilze p. 12. — Peritheciis gre- 2057
gariis, innatis, perexiguis, sphæroideis, 50–65 μ. diam., glabris, contextu laxe areolato; ostiolo obsoleto; ascis paucis, aparaphysatis, ovoideis 22–26 ≃ 14–16, sessilibus, octosporis; sporidiis conglobatis, fusoideis, 11–13 ≃ 3–3,5, hyalinis, uniseptatis, non constrictis.

Hab. in foliis vetustis Caricis rupestris et C. microglochin in Lapponia suecica (Wichura). — Var. *Andromedæ polifoliæ;* peritheciis paulo majoribus 66–80 μ. diam.; ascis 22–26 ≃ 11–14; sporidiis, 9–11 ≃ 3–4, elliptico-fusoideis. Ibidem.

240. **Sphærella Tassiana** De Not. Sfer. ital. p. 87, t. XCVIII. Karst. 2058
Myc. Fenn. II. p. 169. — Peritheciis sparsis vel gregariis, nunc epidermidi, nunc parenchymati innatis, plus minus emergentibus, sphæroideis, vertice sæpe plus minusve conoideo-attenuatis, osculo minuto hiantibus, atris, 60–150 μ. diam.; ascis sessilibus vel brevissime pedicellatis, oblique ovoideo-oblongatis, inæquilateralibus, 40–80 ≃ 18–26 octosporis; sporidiis conglobatis, ovoideo-oblongatis, medio vel paullo extra medium uniseptatis, ad septum vix vel levissime constrictis, hyalinis vel chlorino-hyalinis, 17–26 ≃ 5–9.

Hab. in foliis, rarius culmis emortuis Caricum, Eriophori, Poæ, Glyceriæ, Alopecuri, Tritici, Festucæ, Cala-

magrostidis, Junci, Luzulæ, Typhæ, Tofieldiæ in Lapponia, Fennia, Germania, Italia. — In omnibus regionibus hyperboreis vulgatissima, meridionalem versus admodum rarescens. Quoad magnitudinem formamque peritheciorum maxime variat; hæc nunc sphæroidea, minutissima, poroque simplici pertusa (qualia in Tritico, Calamagrostide et Typha sunt lecta), nunc majora verticeque conoidea, nunc denique in ostiolum conoideum attenuata (qualia in Tofjeldia boreali). Facillime dignoscenda ascis infra inæqualiter saccato-inflatis, sporis 3–4 serialiter stipatis præditis.

241. **Sphærella lineolata** (Desm.) De Not. Schema p. 63 Sacc. Myc. Ven. p. 95, t. IX, fig. 15–17. *Sphæria lineolata* Rob. et Desm. Nouv. Not. 1843, p. 37. — Amphigena, erumpens; perithecis minutissimis, 60–80 μ. diam., poro pertusis, nigris, albo farctis, subconnatis, in seriam simplicem dispositis; ascis oblongo-clavatis, sessilibus, 50 ≃ 12; sporidiis oblongis, v. obovatis, 16–18 ≃ 4–5, uniseptatis, leniter constrictis, guttulatis, hyalinis. 2059

Hab. in foliis emortuis Caricum, Phragmitis, Ammophilæ etc. in Italia, Gallia, Britannia, Germania. — *Sphærella lineolata* in Berk. Fungi Arct. Exped. n. 23 quæ sporidiis tandem triseptatis fuscellisque pollet aliena censenda est.

242. **Sphærella Typhæ** (Lasch) Auersw. Myc. Eur. Pyr. p. 18, fig. 110. *Sphæria Typhæ* Lasch in Rebh. Herb. myc. I, 660. — Perithecis amphigenis, nigris, parenchymate folii innatis, congestis et connatis, acervulos lanceolatos, convexos, $^1/_4$–1 mill. longos, $^1/_6$ mill. latos formantibus, globulosis, poro simplici perforatis, 70 μ. latis; ascis elongato-oblongis, brevissime stipitatis, 8-sporis, 50 ≃ 7–8; sporidiis biserialibus, cuneato-oblongis, utrinque rotundatis, rectis, uniseptatis, ad sepimentum non constrictis, fuscidulis, 14 ≃ 5. 2060

Hab. in foliis emortuis Typhæ latifoliæ et T. minimæ in Germania et Italia. — Fuckel Symb. myc. p. 107, describit formam minorem; ascis 36 μ. long.; sporidiis 10 ≃ 4.

III. *In Acotyledoneis parasiticæ.*

243. **Sphærella Pteridis** (Desm.) De Not. Sfer. ital. p. 87, t. XCIX. Auersw. Myc. Eur. Pyr. p. 19. fig. 82. *Sphæria Pteridis* Desm. Ann. Sc. nat. 2. XIX, p. 359. *Sphæriæ aquilina* Strauss, Hedw. I, p. 73–78, t. 11, a–k. (nec Fr.). — Peritheciis epiphyllis, sparsis, ut plurimum intra nervos subseriatis, epidermide demum erosa, vertice subemergentibus, ostiolo minutissimo pertusis, sphæroideis, 2061

atris, latit. 100–120 μ.; ascis cylindraceo-subclavatis, in pedicellum brevem paulisper attenuatis, 50–70 ≃ 9–12, octosporis; sporidiis di- vel tristichis, fusoideo-bacillaribus, leniter curvulis vel subrectis, medio uniseptatis, ad sepimentum non constrictis, hyalinis, 24–28 ≃ 3–4.

Hab. ad frondes Pteridis aquilinæ in Suecia, Germania, Italia, Gallia, Belgio, Fennia.

244. **Sphærella indistincta** Peck. in 28 Rep. on the St. Mus. New Jork. et in Myc. univ. n. 759. — Peritheciis minutis, innatis, vix prominulis, sparsis vel subgregariis, globosis, nigris; ascis subcylindricis, 35–45 μ. long., sporidiis confertis, elongatis, subcylindraceis, hyalinis, simplicibus vel obscure uniseptatis, sæpe curvulis, 25–28 μ. long. 2062

Hab. in frondibus emortuis Pteridis aquilinæ, Albany, Center, Amer. bor. (Peck). — Sporidiis duplo longioribus a *Sphærella aquilina* differt; «sed forte non diversa a *Sph. Pteridis*».

245. **Sphærella aquilina** (Fr.) Auersw. Myc. Eur. Pyr. p. 20, fig. 83. (erronea). *Sphæria aquilina* Fr. S. M. II. 522. *Sphærella Pteridis* Cooke, nec Fr. — Peritheciis epiphyllis, nigris, epidermide tectis, dein subliberis, undique sparsis, globosis, ostiolo simplici pertusis, 60–80 μ. diam.; ascis oblongis, subsessilibus, 8sporis, 38 ≃ 7; sporidiis 2-3-stichis, incumbenti-stipatis, elongato-oblongis, utrinque subattenuatis, obtusis, uniseptatis, constrictis, 8-9 ≃ 2. 2063

Hab. in frondibus siccis Pteridis aquilinæ, rarius in Germania, Austria et Britannia.

246. **Sphærella prominula** Speg. Mich. I, p. 456. — Periteciis globulosis, primo tectis, dein subsuperficialibus, minutis, 100–120 μ. d., laxe gregariis v. sparsis, epiphyllis, atris; ascis cylindraceo-sinuosis crassiuscule tunicatis, mollibus, aparaphysatis, octosporis, 70–75 ≃ 8–10; sporidiis valde irregularibus, elliptico-oblongis, subinæquilateralibus, 1-septatis, ad septum valde constrictis, minute 2–4-guttulatis, hyalinis, 15–16 ≃ 7–8. 2064

Hab. ad folia emortua Pteridis aquilinæ, Conegliano in Italia boreali. — A *Spherella Pteridis*, *Sph. aquilina*, *Didymella lophospora* etc. satis superque distincta.

247. **Sphærella Filicum** (Desm.) Auersw. Mich. Eur. Pyr. p. 20, t. 6, f. 81. *Sphæria Filicum* Desm. Ann. Sc. nat. 2, XIII, p. 187 (1840). — Peritheciis amphigenis, sparsis, maculæ fuscæ insidentibus, innato-prominulis, sphæroideis, poro majusculo hiantibus, atris latit. circiter 0,1 mill.; ascis e basi ampliata apicem versus attenuatis, 2065

brevissime pedicellatis, 32–40 ≃ 8–10 octosporis; sporidiis in parte asci superiori monostichis, inferiori distichis, ovoideo-oblongatis medio uniseptatis, ad septum vix constrictis, hyalinis, 10 ≃ 3.

Hab. in frondibus Aspidii spinulosi, A. Filicis maris, Asplenii Adianti-nigri in Gallia, Britannia, Germania et Fennia.

248. **Sphærella Tyrolensis** Auersw. Myc. Eur. Pyr. p. 20, t. 6, f. 84. 2066
— Peritheciis epiphyllis, gregariis, parenchimati innatis, vix prominulis, subsphæroidis, ostiolis minutis hiantibus, atris, latit. 120–130 μ.; ascis clavatis, in pedicellum brevem attenuatis, long. 40–60 ≃ 13 μ.; sporidiis octonis, di- vel tristichis, uniseptatis, medio non constrictis, chlorino-hyalinis, long. 14–16 ≃ 4–5.

Hab. in frondibus Polypodii vulgaris languescentis in Germania et Fennia.

Var. *montellica* Sacc. Mich. I. 34. A typo differt sporidiis majoribus constrictisque; ascis clavatis, 50 ≃ 14, p. sporif., apice obtusatis, octosporis; sporidiis distichis, fusoideis, 18–20 ≃ $7^1/_4$–$8^1/_2$, rectis curvulisve, 1-septatis, leniter constrictis, 2-nucleatis, vel pluriguttulatis, hyalinis.

Hab. in maculis rufescentibus paginæ superioris Polypodii vulgaris in sylva Montello Italiæ borealis.

249. **Sphærella Asplenii** Auersw. Myc. Eur. Pyr. p. 20, fig. 80. — 2067
Peritheciis epidermide primo tectis, dein semiliberis, dense sparsis, globosis, ostiolo simplici pertusis, 60–70 μ. diam.; ascis oblongis, subsessilibus, octosporis, 40 ≃ 10; sporidiis, 3-4-seriatis, cylindrico-oblongis, utrinque obtusatis, uniseptatis, 14 ≃ 2, ad septum vix constrictis, hyalinis.

Hab. in fronde emortua Asplenii septentrionalis in Germania et Austria. — Sec. Fuck. sporidia continua 4-guttulata, sed probabiliter immatura observavit.

250. **Sphærella lycopodina** Karst. F. Fenn. exs. 569 (1866), Myc. 2068
Fenn. II. p. 184 *Sphærella Niesslii* Auersw. in Niessl. Beitr. p. 19, t. III, fig. 15 (1872) *Gnomonia Niesslii* Auersw. in Rabh. F. Eur. n. 1154 (1868). — Peritheciis gregatim sparsis innatis, subsphæroideis, ostiolo minuto hiantibus, fusco-atris, latit. 100–130 μ.; ascis cylindraceo-clavatis, apicem versus attenuatis, sessilibus, 60–80 ≃ 8–12, octosporis; sporidiis distichis, aciculari-elongatis, rectis vel leniter curvulis, basim versus uniseptatis, chlorino-hyalinis, 20–24 ≃ 3–5. — Spermogonia gregaria, subinde conglomerato-connata, difformia, ut plurimum suborbicularia, convexa, demum appla-

nata, plicata, nigra, nitentia, minuta; spermatiis elongatis vel bacillaribus, rectis, hyalinis, simplicibus, 16-19 ≃ 3.

Hab. in foliis languidis v. siccis Lycopodii complanati in Fennia et L. annotini in Styria.

251. **Sphærella Equiseti** Fuck. Symb. Mycol. p. 102, t. IV, fig. 40. 2069
An *Sphæria Equiseti* Desm. Cat. pl. omiss. p. 31. — Peritheciis sparsis, tectis, punctiformibus, globosis, atris, ostiolis minutis, prominulis; ascis fasciculatis, oblongis, sessilibus, 8sporis; sporidiis distichis, oblongis, parum curvatis, uniseptatis, ad septum constrictis, multiguttulatis, hyalinis, 16 ≃ 4.

Hab. in caulibus ramulisque Equiseti palustris et sylvatici in Germania, Gallia, Italia et Sibiria asiatica.

IV. *In charta foliisque ignotis parasiticæ.*

252. **Sphærella Karsteniana** Speg. Mich. I, 229, F. it. t. 625. — Pe- 2070
ritheciis superficialibus, v. basi tantum immersis, lenticularibus 80-100 μ. diam., membranaceis, ostiolo impresso pertusis, fuligineis, circa ostiolum nigricantibus; ascis oblongo-fusoideis, deorsum incrassatis, 70-75 ≃ 20, subsessilibus, vertice acutiuscule rotundatis crasseque tunicatis, aparaphysatis, octosporis; sporidiis di-polystichis, fusoideis, 20-25 ≃ 8, constricto-1-septatis, utrinque acutiusculis, 2-4-guttulatis, hyalinis.

Hab. in charta stercorata putrescente, Conegliano, Ital. bor. 2071

253. **Sphærella congregata** (Lév.) Sacc. *Sphæria* (epiphylla) *congregata* Lév. Ann. Sc. nat. 5, 1846, p. 261. — Peritheciis epiphyllis v. amphigenis maculæformi-aggregatis, nigris, punctiformibus, prominentibus, glabris; ostiolis minutissimis; ascis brevibus crasse clavatis, 8-sporis; sporidiis oblongis septatis.

Hab. in Java ad folia..... (Herb. Mus. Par.).

V. *Species minus notæ.*

254. **Sphærella corylaria** (Wall,) Fuck. Symb. myc. p. 99. *Sphæria* 2072
corylaria. Wallr. Crypt. Germ. p. 770. — Peritheciis solidiusculis, minutis, confertim sparsis, hemisphærico-synphlœodeis, hypophyllis, vertice convexo nitido prominentibus, nucleo albo farctis.

Hab. in foliis languidis Coryli Avellanæ in Germania, Gallia, Italia. — Nucleus albidus, corpusculis subovatis, hyalino-farctis (ascis immaturis?) fœtus. Dubia in hoc genere species. *Sph. sparsa* f. *corylaria* Auersw. M. Eur. Pyr. p. 4, fig. 22 aliena est et potius *Sph. punctiformi* adscribenda.

255. **Sphærella Vitis** Fuck. Symb. myc. p. 104, Thuem. Pilze Weinst. p. 201. — Peritheciis dense gregariis vel confluentibus, hypophyllis, minutis, atris, vix hemisphæricis, in maculis parvis, gregariis, atro-nitidulis, nucleo compacto albido, duriusculo; ascis sporidiisque ..... — St. conidicus *Septosporium Fuckelii* Thuem. sistens, sec. Fuck. 2073

Hab. in foliis languidis aridisque Vitis viniferæ in Germania, Austria, Italia. — Sporidia descripta in Thuem. l. c. *Sphærellæ* vix pertinent.

256. **Sphærella Turba** Fuck. Symb. myc. p. 103. — Peritheciis gregariis, in maculis orbicularibus, griseis, conicis, apiculatis, semiimmersis, aterrimis; ascis (immaturis) fasciculatis; sporidiis ? 2074

Hab. in pag. infer. foliorum dejectorum Salicis auritæ, prope Œstrich, Germania, rarius.

257. **Sphærella insularis** Wallr. (sub *Sphæria*) Fl. crypt. n. 3936. — Peritheciis microscopicis, globosis gregariis nigris, nucleo cinereo-albo farctis cum stromate tenui grumuloso fusco synphlœodeo-latitantibus, dein vertice convexo tenuiter perforato prominulis insulasque rotundato-angulatas fusco-virentes mentientibus. 2075

Hab. ad folia ulmea et corylea languida in Germania. — Sec. Auersw. ad *Sph. punctiformem* spectat, sed descriptio Wallr. non quadrat. *Sph. insularis* Fuck. Symb. myc. ad *Sph. conglomeratam* (Wallr.) pertinet.

258. **Sphærella leptidea** (Fr.) Fuck. Symb. mycol. p. 100, *Sphæria leptidea* Fr. S. M. II, p. 522. — Gregaria, epidermide tegente innata, leviter convexa, collabascendo umbilicato-depressa, lævis, atra, ostiolo pertuso; ascis ..... ignotis. Spermatia cylindracea subrecta, hyalina 8 ≃ 2. 2076

Hab. in foliis dejectis Vaccinii Vitis idææ, amphigena, in Suecia et Germania. — In inferiore pagina foliorum conferta et sæpe confluens, *Sph. punctiformi* duplo v. triplo major, orbiculata, raro irregularis, lævis nitida, intus albida. Ostiolum punctiforme, distinctum, primo obtutu quasi papillatum.

259. **Sphærella Emeri** Ces. ad int. in Fungi Eur. n. 1950. — Maculis nigris effusis; peritheciis sparsis epidermide tectis, subglobosis, ostiolo nullo; nucleo hyalino ex ascis valde immaturis linearibus curvulis 40 μ. longis, aparaphysatis constante. 2077

Hab. in foliis delapsis Coronillæ Emeri, sæpius hypophylla, prope Brescia Italiæ borealis.

260. **Sphærella nyssæcola** Cooke Hedw. 1868, p. 40. — Hypophylla; 2078

peritheciis numerosissimis, semiimmersis, brunneis, punctiformibus; ascis clavatis 20–25 μ. long.; sporidiis minutis (immaturis).

Hab. in foliis Nyssæ multifloræ, Florida, Carolina America boreali.

261. **Sphærella Rottleræ** (B. et Br.) Sacc. *Sph.* (Depazea) *Rottleræ* B. et Br. Fungi of Ceylon n. 1124. — Epiphylla, e macula umbrina pallida oriunda, orbicularis, nivea, limitata; peritheciis atris. 2079

Hab. in foliis Rottleræ quadricoccæ, Peradenya, Ceylon.

262. **Sphærella bonaërensis** Speg. Fungi Arg. Pug. III, n. 53. — Peritheciis hypophyllis, densissime gregariis in maculis latis cinereo-fuscescentibus, indeterminatis insidentibus, minutis, 90–110 μ. diam., lenticulari-globosis, erumpentibus, atris, ostiolo minuto, impresso pertusis; ascis et sporidiis ob immaturitatem ægre describendis. — St. conidiophorus sistit sec. Speg., *Cercosporam dubiam* Speg. Pug. I, n. 131. 2080

Hab. in foliis dejectis putrescentibus Celtidis Talæ, en Barracas del Sur, Argent. Amer. austr.

263. **Sphærella Arbuti** Fr. sub *Sphæria* S. M. II, p. 523. — Sparsa, innata, astoma, opaca, atra, primo convexa, dein applanata rugulosa. 2081

Hab. in foliis emortuis Arctostaphyli alpini in Suecia. An *Discosia?*

264. **Sphærella acerina** Wallr. sub *Sphæria*, Fl. crypt. n. 3718. — Peritheciis exiguis confertim sparsis synphlœodeis orbiculatis nigris nitidulis, centro tenuiter papillato dein umbilicato-depressis marginemque obtusum prominulum veluti circumducentibus. 2082

Hab. ad folia Aceris Pseudo-platani putrida in Germania, Belgio, Gallia, Italia. — Sec. Auerswald est forma *Sphærellæ maculiformis.* Nucleus maturus non observatus.

265. **Sphærella Mori** Fuck. Symb. myc. p. 106. — Spermogonium *Septoriam Mori* Lév. sistit. Statum vero ascophorum nullibi observare nec descriptum invenire mihi contigit. 2083

Hab. in foliis Mori albæ in Germania. — Exemplaria lipsiensia, ab Auerswald lecta, sistunt non nisi *Phyllostictam osteosporam* Sacc.

266. **Sphærella? Caprifoliorum** (Desm.) Sacc. Mich. II, 35, *Sphæria Caprifoliorum* Desm. 1 Not. Crypt. p. 188. — Amphigena, aggregata v. sparsa; peritheciis globosis, astomis, nigris, subnitidis, e macula determinata grisea emergentibus; nucleo ignoto. 2084

Hab. ad folia Loniceræ Caprifolii et Xylostei in Gallia.

267. **Sphærella Atomus** (Desm), Cooke Grevill. III, p. 169, *Sphæria* 2085

Atomus Desm. nec Fuck. (teste Auersw.) — Epiphylla; maculis rufis minutis sæpius orbicularibus; peritheciis minutissimis, copiosis, brunneis, innatis, prominulis, collabascendo umbilicatis; nucleo fructifero ignoto.

Hab. in foliis emortuis Fagi slvaticæ in Gallia, Belgio et Britannia.

268. **Sphærella Aucupariæ** Lasch sub *Sphæria,* Plowr. Sphær. Brit. III, n. 65. — Dense gregaria, hypophylla; peritheciis globulosis, prominulis, nigris, nitidulis, pertusis, intus albo-cellulosis. 2086

Hab. in foliis nondum emortuis Sorbi Aucupariæ in Germania et Britannia. — Mihi videtur status provectus *Septoriæ hyalosporæ* (Ces.), forte denique ascophorus evadens. Conferatur *Sphærella topographica* Sacc. et Speg.

269. **Sphærella? fagicola** (Fr.) Auersw. Myc. Eur. p. 7, fig. 21, *Sphæria* (Depazea) *fagicola* Fr. S. M. II, 529. — Peritheciis hypophyllis, atris, nitidissimis, epidermidi adnatis, densissime congestis, maculas subrotundas angulosas $^1/_2$–$1^1/_2$ mill. latas formantibus, omnino astomis; ascis ignotis. 2087

Hab. in pag. inf. foliorum Fagi sylvatiæ languidorum in Germania et Suecia.

270. **Sphærella Mercurialis** Lasch. in Kl. Hq. myc. 1251, Fuck. Symb. myc. p. 103, F. rh. 844. 2088

Hab. in foliis languidis Mercurialis perennis in Germania et Austria. — Ex speciminibus Thuem. Fungi Austr. n. 1259 nullas notas eruere potui.

271. **Sphærella? Armoraciæ** (Fuck.) Oudem. F. Neesl. n. 170, *Ascochyta Armoraciæ* Fuck. Symb. myc. p. 388. — Peritheciis conicis, atris, sparsis in macula expallescenti; ascis sporidiisque .... immaturis. 2089

Hab. in foliis nondum emortuis Armoraciæ rusticanæ in Germania et Hollandia.

272. **Sphærella ferruginea** Fuck. Symb. myc. App. II, p. 20. — Peritheciis, gregariis, minutis, erumpentibus, ovato-globosis, atris in foliis nascentibus; ascis fasciculatis, oblongis, curvatis, 8sporis; sporidiis perfecte maturis nondum visis. — Fungus conidiophorus *Cercosporam ferrugineam* Fuck sistit. Fungus stylosporiferus *Phomam* refert. Peritheciis sparsis, subsuperficialibus in cæspitibus fungi conidiophori foliorum marcescentium ortis, perithecio ascophoro triplo majoribus, ovato-globosis, atris vertice pilis paucis concoloribus, perithecii longitudine, in acumen connatis instructis; stylosporis cylindraceis, subrectis, continuis, $6 \simeq 2$. 2090

Hab. in foliis Artemisiæ vulgaris in Rhenogovia.

273. **Sphærella subalpina** Sacc. Mich. II, p. 247. — Peritheciis in maculis foliorum lutescentibus, dense gregariis, globulosis, pertusis, innato-prominulis, 80–90 μ. diam.; nucleo albo, cellulis (ascis immaturis?) subellipsoideis, 8–9 ≃ 6–7, guttulatis fœto. 2091

Hab. in foliis nondum emortuis Senecionis cordati, Cadore, Italia bor. (Spegazzini). — Etsi specimina immatura, species distincta videtur.

274. **Sphærella? Aronici** Fuck. Symb, myc. App. III, p. 18. — Sec. Fuck. status conidicus sistit *Fusicladium Aronici* Sacc.; status spermogonicus refert *Phyllostictam Aronici* nuncupandam; status vero ascophorus nondum observatus; ergo species perdubia. 2092

Hab. in foliis nondum emortuis Aronici scorpioidis in Helvetia et Italia.

275. **Sphærella Petasitidis** (Rabh.) Fuck. Symb. myc. p. 99, *Sph. Petasitidis* Rabh. — Spermogonium: spermatiis cylindraceis, subrectis, guttulatis, hyalinis, 10 ≃ 2. 2093

Hab. in pag. infer. foliorum Petasitidis officinalis in Germania et Belgio. — In exempl. n. 733 Herb. myc. ed. II observantur perithecia epiphylla, hinc inde dense gregaria, globulosa, innato-prominula, nigra; nucleus albo-cellulosus, tandem probabiliter asciger. In Lusatia (Kretschmar).

276. **Sphærella Cerastii** Fuck. Symb. myc. p. 101, *Sphæria Stellarinearum* v. *Cerastii* Rabh. F. eur. 448. — Status conidicus *Isariopsidem pusillam* Fres. sistit. Status ascophorus hucusque imperfectus est observatus. 2094

Hab. in foliis emortuis Cerastii trivialis, C. arvensis et C alpini in Germania et Lapponia.

277. **Sphærella perforans** (Desm.) Sacc. *Sphæria perforans* Desm. X, n. 1843, p. 23. — Epiphylla, sparsa; peritheciis immersis, minutis, nigris, ellipsoideis; ostiolis perforantibus, superficialibus, convexis, dein collabascendo subconcavis, poro dilitato apertis; sporidiis ellipticis, hyalinis, bilocularibus. 2095

Hab. in foliis siccis Calamagrostidis arenariæ in Gallia et Hollandia. — Asci indescripti, an ergo vera *Sphærella?* Sec. Oud. ann. 1876–77, p. 20, potius *Dilophosporam* sistit, sec. Berk. est *Sphæria subuletorum*. An plures res confusæ?

278. **Sphærella? cinereo-nebulosa** (Desm.) Sacc. *Sphæria? cinereo-nebulosa* Desm. 24, n. 1857, p. 20. — Graminicola, nebulosa, linearis, tecta, suberumpente; peritheciis microscopicis, 50–75 μ. d.. 2096

numerosissimis biserialibus confertissimis, subconnatis, globosis, nigris, intus albis, stromatis brunneo subimmersis.

Hab. in foliis exsiccatis Phalaridis arundinaceæ in Gallia. — Nucleus ignotus.

279. **Sphærella Polypodii** (Rabh.) Fuck. Symb. p. 102.

Hab. in frondibus Polypodii vulgaris (nec non, sec. Fuck., Aspidii Filicis maris, Asplenii Trichomanis, Pteridis aquilinæ) in Germania, Lusitania et Sibiria, — Nec diagnosim nec exemplaria perfecta et genuina invenire contigit. Sec. Auerswald Myc. Eur. Pyr. p. 20, hæc species ad *Leptosphæriam* spectaret. Equidem plures auctores pro hac specie *Sphærellam Tyrolensem* sumunt. 2097

APIOSPORA Sacc. Consp. Gen. Pyr. p. 9. — (Etym. ab *apios*, pyrus, ob formam sporid.). Perithecia tecta, membranacea, globulosa, pseudostromate fusco connexa. Asci octospori paraphysati, v. saltem pseudoparaphysati. Sporidia clavato-subpyriformia, deorsum attenuata et sæpe curvula, prope imam basim tenuiter 1-septata, nubilosa, hyalina. — Species ut plurimum graminicolæ.

1. **Apiospora Montagnei** Sacc. Fungi Ven. Ser. II, p. 306, *Sph. apiospora* Dur. et Mont. Fl. Alg., I, p. 492, t. 25, f. 1, Mont. Syll. Crypt. n. 809, *Hypopteris apiospora* (Mont.) Berk. Dec. Fung. n. 485*. — Erumpens, linearis, atra; peritheciis pro ratione amplis globosis uniserialibus albo-farctis, stromate fusco connexis, ostiolis hemisphæricis umbilicatis; ascis clavatis, 70-90 ≃ 20; sporidiis biserialibus ovato-oblongis appendiculato-pyriformibus, 25 ≃ 10, hyalinis. 2098

Hab. in culmis Arundinis mauritanicæ, circa Perpignan Galliæ et in Algeria, Arundinariæ in Carolina et Alabama Amer. bor., Bambusæ ad Nangki in India orient.

2. **Apiospora Striola** (Pass.) Sacc. Fungi Ven. Ser. II, p. 305, Fungi ital. t. 180, *Homostegia Striola* Pass. in Nuov. Giorn. Bot. ital. 1871, p. 325. — Peritheciis parallele seriatis, immersis culmique superficiem nonnihil elevantibus erumpentibusque, minutis, 150 μ. diam., globosis, atris, stromate nigricante connexis, ostiolo brevissimo, cylindraceo, latiuscule aperto, contextu dense parenchymatico, fuligineo; ascis cylindeaceo-clavatis, 70-80 ≃ 12, rarius 90 μ. longis, basi attenuatis, subsessilibus, pseudo-paraphysibus crassiusculis guttulatis obvallatis, 8sporis; sporidiis oblique monostichis v. subdistichis, oblongo-clavatis, deorsum sæpe incurvo-attenuatis, 28- 2099

$30 \simeq 5^1/_2$–$6^1/_2$, basi ima excentrice spurie 1-septatis, seu inæqualiter 2-nucleatis, hyalinis.

Hab. in culmis Andropogonis, Phragmitis, Bambusæ prope Parma et Treviso Ital. bor. et Lyon Galliæ. — Præcedenti maxime affinis.

3. **Apiospora parallela** (Karst.) Sacc. Fungi Ven. Ser. II, p. 306, *Sphærella parallela* Karst. Myc. Fenn. II, p. 185. — Peritheciis uniserialibus, sphæroideis, stromate tenui, atro tectis, sphæroideis, celluliformibus, tenuissimis, pallidis vel demum subfuscescentibus, in strias parallelas, 1-2 mill. long., lineares, per rimas epidermidis erumpentes, subconfluentibus minutis; ostiolis papillatis, prominulis; ascis sessilibus, fusoideo-bacillaribus, $90 \simeq 10$–12 octosporis; sporidiis aciculari-elongatis, ut plurimum curvulis, simplicibus vel sæpius basin versus tenuiter uniseptatis, hyalinis, 24–$34 \simeq 4$–5. 2100

Hab. in culmis Calamagrostidis aridis prope Mustiala Fenniæ.

4. **Apiospora? Lloydii** (Crouan.) Sacc., *Sphæria Lloydii* Crouan Finist. pag. 28. — Peritheciis sphæroideis, nigris, 4–5-seriatis, 0,5 mill. diam., ostiolo punctiformi; ascis subclavatis, octosporis; sporidiis distichis oblongis, granulosis, limbatis, hinc loculo obtuso auctis (h. e. prope extremitatem 1-septatis). 2101

Hab. in culmis Phragmitis, Dactylidis, Holci, Finistère Galliæ.

5. **Apiospora inserta** (Berk. et Curt.) Sacc. *Dothidea inserta* B. et C. Fungi exot. Schwein. p. 288, t. XXV, fig. 11. — Lineari-oblonga erumpens, margine nigro, disco albo, ostiolis minutis punctato; ascis brevibus; sporidiis subclavatis basi uniseptatis, hyalinis, 20 μ. longis. 2102

Hab. in culmis putrescentibus Arundinis cujusdam, Surinam. — Series peritheciorum 2–3 mill. longæ.

6. **Apiospora Punctum** Sacc. et Speg. Mycoth. Ven. n. 1268, Mich. I, 329, Fungi ital. t. 179. — Peritheciis gregariis, distinctis, foliorum parenchymate immersis, epidermide circum circa brevissime nigrificata velatis, breve obtuse papillulatis; contextu perithecii parenchymatico fuligineo; ascis cylindraceo-clavatis, $80 \simeq 18$, breve oblique stipitatis, apice rotundatis, lumine apice paulum coarctato, paraphysibus filiformibus guttulatis, obvallatis, octosporis; sporidiis oblique monostichis vel distichis, oblongo-clavatis, deorsum attenuato-curvulis, prope basim (spurie?) 1-septatis, inæqualiter 2-nucleatis, hyalinis. 2103

Hab. in foliis putrescentibus Moliniæ et Dactylidis, Conegliano, Ital. bor., Bambusæ, Lyon Galliæ. — Ab *Ap. Striola* (Pass.) peritheciis subsolitariis, nec stromate lineari-connexis, sporidiis crassioribus etc. differt.

7. **Apiospora comedens** (Schw.) Sacc. *Sphæria comedens* Schw., B. et C. Exot. Fung. Schw. p. 290, t. XXV, fig. 12. — Hypophylla; peritheciis subcongestis prominulis epidermide tectis, subastomis; ascis brevibus, clavatis, obtusis; sporidiis elongatis subclavatis, denique prope basim (spurie?) 1-septatis, hyalinis. 2104

Hab. in foliis emortuis, Surinam. — Format minutos greges peritheciis prominulis, densis sed non confluentibus.

STIGMATEA Fr. Summ. Veg. Scand. p. 421 p. p. (Etym. a *stigme*, punctum). — Perithecia innato-prominula, glabra, tenuissima, ostiolo minuto, nucleo firmulo albo; contextu perithecii stratis cellulosis sæpius pluribus formato. Asci oblongati, subsessiles octospori, paraphysati v. pseudoparaphysati. Sporidia ovoideo-ellipsoidea, uniseptata (in sect. *Stigmatula* continua) hyalino-flavescentia. — Fungilli exigui, ut plurimum in foliis vivis vigentes.

I. *Eustigmatea:* sporidiis uniseptatis.

1. **Stigmatea Robertiani** Fr. Summ. Veg. Scand. p. 421, *Dothidea Robertiani* Fr. S. M. II, p. 564, *Cryptosphæria nitida* Grev. Edin. p. 363, *Hormotheca Geranii* Bon. Abhand. p. 149, t. I, f. 22. — Peritheciis subsparsis, epiphyllis, innato-prominulis, hemisphæricis vel subsphæroideis, lævibus, nitidis, nigris, nucleo albo, circiter 140 μ. lat. contextu minutissime celluloso; ascis oblique oblongatis, 36-45 ≃ 10-12, spurie paraphysatis, octosporis; sporidiis subdistichis, ovoideo-ellipsoideis, inæqualiter uniseptatis, hyalino-flavescentibus, 12-14 ≃ 4,5-5, loculo superiore crassiore. 2105

Hab. in foliis adhuc vivis Geranii Robertiani in Suecia, Britannia, Fennia, Belgio, Gallia, Italia, Austria et Amer. boreali. 2106

2. **Stigmatea Geranii** Fr. S. V. Scand. pag. 421, p. p., Fuck. Symb. myc. p. 95, Oud. Mat. Myc. Neerl. II, p. 65, t. XVI, fig. 8, *Dothidea Geranii* Fr. S. M. II, p. 558, *Perisporium Geranii* Bon. Handb.? p. p. — Epiphylla; peritheciis gregariis, in macula purpurascenti, ovatis, minutis, atris, glabris; ascis elongatis, 8sporis, 40 ≃ 8; sporidiis distichis, subclavatis, didymis, hyalinis, 8 ≃ 4.

Hab. in foliis vivis Geranii pusilli, G. dissecti, G.

mollis etc. in Suecia, Belgio, Hollandia, Britannia, Germania. — *Fusidium Geranii* West. sistit, sec. auctores, statum conidicum.

3. **Stigmatea confertissima** Fuck. Symb. myc. p. 95, *Dothidea* (Sphæria) *Geranii* (Kunze) Fr. Syst. myc. II, p. 558, p. p. — *Stigmatea Geranii* Fr. peraffinis, differt tamen peritheciis majoribus in greges majores densius congestis; ascis sporidiisque iisdem. 2107

Hab. in utraque (sæpius inferiore) pagina foliorum vivorum Geranii sylvatici in Helvetia et Fennia.

4. **Stigmatea? maculæformis** Fr. S. V. Scand. p. 421, Fuck. Symb. myc. p. 95, *Sphæria maculæformis* Pers. (p. p.). — Hypophylla; peritheciis sphæricis, punctiformibus, minutis, subastomis, intus albis, in greges maculiformes atros inter nervos congestis; ascis oblongis, sessilibus, 8sporis, 40 ≃ 10; sporidiis farctis, oblongo-subclavatis, uniseptatis, hyalinis, 14 ≃ 4. 2108

Hab. in foliis Alni incanæ exsiccatis in Germania, Belgio et Suecia. — *Stigmatea maculiformis* (Desm.) Niessl in F. E. n. 2652 aliena est. Cfr. *Læstadia epilobiana*.

5. **Stigmatea Ranunculi** Fr. Summ. Veg. Scand. p. 421, *Sphærella Ranunculi* Karst. Fungi Spetsb. n. 50, nec *Dothidea Ranunculi* (Wallr.) Fr. Syst. myc. II, p. 562. — Peritheciis epiphyllis, maculæ expallenti insidentibus, confertis, rarius subsparsis, innato-prominulis, sphæroideis, vertice interdum conoideo-attenuatis, ore rotundato hiantibus, glabris, nigris 150–200 μ. lat.; ascis e basi ampliata attenuatis, inæquilateralibus, 50–60 ≃ 13–16, octosporis; sporidiis conglobatis, aciculari- vel fusoideo-elongatis, uniseptatis, plerumque rectis, hyalinis vel luteolo-hyalinis, 23–30 ≃ 4–5; paraphysibus nullis. 2109

Hab. in foliis Ranunculi repentis nivalis et R. sulphurei in Germania, Britannia, Suecia et Lapponia.

6. **Stigmatea Sequojæ** (Cooke) Sacc. *Dothidea Sequojæ* Cooke et Harkn. Grevill. IX, 1881, p. 87. — Follicola sparsa, convexa, atra, nitida, minuta, unicellulata; ascis late clavatis, sessilibus; sporidiis biseriatis, lanceolatis, obtusis, medio constrictis, uniseptatis, binucleatis, hyalinis 23 ≃ 7,5. 2110

Hab. in foliis Sequojæ v. Cupressi, California, Amer. bor. 2111

7. **Stigmatea Andromedæ** Rehm Ascom. n. 542, Diagn. n. 542. — Peritheciis sparsis, globosis, viridifuscis, minutissimis, basi hyphis brevibus, fuscis, repentibus et rectangulariter ramosis cinctis, ceterum glabris, sessilibus; ascis pyriformibus, apice valde incrassatis, 8sporis, 30 ≃ 14; sporidiis distichis, cuneiformibus, bicellulari-

bus, plerumque singulis cellulis magninucleatis, hyalinis, 14 ≃ 4; paraphysibus ramosis, intricatis.

Hab. in pagina inferiori foliorum vivorum Andromedæ polifoliæ, Haspelmoor prope Augustam Vindelicorum (Britzelmayr).

8. **Stigmatea jenensis** Kunze F. sel. exs. n. 239 (sine diagnosi). — 2112
Peritheciis amphigenis in maculas nigras minutas, ramulis limitatas, densissime stipatis, perexiguis, globosis, 50–60 μ. diam., vix pertusis, innato-prominulis; ascis dense fasciculatis obclavatis, sessilibus, 25–30 ≃ 10–11, octosporis; sporidiis, 2–3-stichis, in asco diu inclusis, oblongis, utrinque obtusiusculis, 1-septatis, vix constrictis, 10 ≃ 3–4, bi-quadrinucleatis, hyalinis.

Hab. in foliis putrescentibus Laserpitii latifolii pr. Jena Germaniæ. — Æquo fere jure ad *Sphærellas* duci potest.

9. **Stigmatea sclerotidea** Cooke. North Am. Fungi Grev. V. p. 153. 2113
— Gregaria, atra; peritheciis superficialibus, depressis; ascis clavatis mox diffluentibus; sporidiis biseriatis, ellipticis, hyalinis, uniseptatis, 22 ≃ 9.

Hab. in foliis Arundinariæ, Carolina inf. Amer. bor. — Habitus *Parodiellæ* sed sporidia hyalina descripta.

10. **Stigmatea seminata** (B. et Rav.) Sacc. *Dothidea seminata* B. et 2114
Rav. — North Amer. Fungi n. 883. — Sparsa, granulata, centro demum punctato pertusa; ascis clavatis; sporidiis biseriatis, cymbæformibus, uniseptatis, 25 μ. long.

Hab. in foliis Desmodii in America boreali. — Sporidia angustiora quam in *Parod. perisporioide*, cujus habet faciem.

II. *Stigmatula:* sporidiis continuis.

11. **Stigmatea Sutherlandiæ** Kalch. et Cooke Crev. IX, 1880, p. 32. 2115
— Phyllogena, punctiformis, atra, elevata, convexa, nitida sparsa; ascis clavatis; sporidiis ellipticis, continuis, hyalinis.

Hab. in foliis putrescentibus Sutherlandiæ in Africa australi.

12. **Stigmatea Rhyncosiæ** Kalch. et Cooke Grev. IX, 1880, p. 32. — 2116
Epiphylla, atra, nitida, convexa, gregaria, in maculas orbiculares disposita, numerosa, minutissima; ascis clavatis; sporidiis ellipticis, hyalinis, continuis, binucleatis, 12 ≃ 6.

Hab. in foliis viventibus Rhyncosiæ in Africa australi. — Habitus fere *Parodiellæ circinatæ* (K. et C.) sed perithecia copiosiora et tertia parte minora sporidiaque aliena.

13. **Stigmatea gregaria** Cooke Fungi of Texas 144. — Epiphylla; peritheciis gregariis erumpentibus atris, globosis, subnitidis; ascis cylindraceis,; sporidiis subglobosis, hyalinis, 10-12 = 9. 2117

Hab. in Texas, Meskat Bay, in foliis ignotis (Ravenel).

14. **Stigmatea submaculans** Mont. Syll. Crypt. n. 988 et Cuba, p. 329. — Epiphylla; peritheciis innatis ovoideis vix prominulis punctiformibus atris, poro albo pertusis, in maculam folio dilutiorem brunneo-rufam nervis circumscriptam dense aggregatis; ascis clavatis convergentibus sporidia subsena fusiformia foventibus. 2118

Hab. in folio mihi ignoto in insula Cuba lecto (Auber).

III. *Species dubiæ.*

15. **Stigmatea impressa** Fr. S. M. II, 564, et Elen. II, 126 (sub *Dothidea*). — Epiphylla, sparsa, umbilicata, nigra, nitida, collabascendo concava, levis. 2119

Hab. ad folia viva Rubi Chamæmori et Rosarum in Suecia. — A *Sphærella punctiformi* certa diversa (Fr. l. c.).

16. **Stigmatea conferta** Fr. Summa Veg. Scand. p. 421, *Sphæria conferta*, Fr. S. M. II. p. 435. — Innata, hipophylla, difformis, nigra; peritheciis prominulis globosis farctis in centro confluentibus. 2120

Hab. in foliis languescentibus Vaccini uliginosi in Suecia et Britannia. — Macula exarida v. propria nulla. Perithecia prominula, minuta, aggregata, opaca, astoma, albo-farcta, centralia confluunt, marginalia sublibera. Habitus *Sph. maculæformis.*

17. **Stigmatea Coriariæ** Mont. Syll. Crypt. n. 987 et Notice etc., in Ann., 2, I, p. 346, sub *Dothidea.* — Hypophylla, nigra; peritheciis prominulis nitidis intus albis, solitariis vel sæpius in maculas irregulares congregatis. 2121

Hab. in foliis dejectis Coriariæ myrtifoliæ circa Aginnum Galliæ (Chaubard).

18. **Stigmatea Lentisci** Mont. Syll. Crypt. n. 989 et Fl. Alg., I, p. 548. — Hypophylla; peritheciis minutis prominulis astomis atris albo-farctis confertis aut in cæspitulos orbiculares epidermide tectos subconnatis. Nucleus junior. 2122

Hab. in foliis Pistaciæ Lentisci dejectis, Alger (Durieu).

19. **Stigmatea Polygonorum** Fr. Summa Veg. Scand. p. 421, *Dothidea Polygoni*, Fr. S. M. II, 564. — Amphigena, subgregaria, minima, atra, subnitida, collabascens, intus concolor. 2123

Hab. ad folia Polygoni avicularis etc. in Suecia, Britannia, Belgio. — Maculæ subexpallenti, non exaridæ, insidet, ad fo-

liorum nervos in crustam passim confluens. Nucleus ignotus. Sec. Kickx Fl. Crypt. Fland. 1, p. 365, ejus spermogonium sistit *Melasmiam Aviculariæ* West.

20. **Stigmatea Ostruthii** (Fr.) Oudem. Ascosp. p. 52 etc. *Sph. Ostruthii* Fr. S. M. II, p. 526 *Ascospora Ostruthii* Fr. S. Veg. Scand. p. 426. — Hypophylla, aggregata, peritheciis globosis minimis astomis atris, e crustula determinata grisea emergentibus. 2124

Hab. ad folia Imperatoriæ Ostruthii (nec non Angelicæ, Heraclei) in Suecia, Britannia, Belgio, Gallia, Germania, Italia. — Maculæ minutæ, angulatæ, 1-2 lin. latæ, passim confluentes, primo intuitu nigricantes, ortæ e peritheciis minimis confertis emergentibus, primo mollibus sclerotioideis. Asci, sec Kickx Fl. I, 357, breves subclavati, sporidia submonosticha (immatura) foventes. An veri asci?

21. **Stigmatea Ægopodii** (Fr.) Oudem. Ascosp. p. 52 etc. *Sph. Ægopodii*, Prs. Syn. 89. Fr. S. M. II, p. 529 *Ascospora Ægopodii* Fr. S. Veg. Sc. p. 425. — Sparsa, peritheciis innatis prominulis astomis nigris, maculæ albæ crustæformi insidentibus; nucleo imperfecto hucusque observato. 2125

Hab. ad folia viva *Ægopodii Podagrariæ* in fere tota Europa. — Macula non exarida, determinata; perithecia hypophylla. A *Phyll. Ægopodii* Fuck seu *Dothidea Podagrariæ* (Roth.) Fr. rite distinguenda?

DIDYMELLA Sacc. Mich. I, p. 377. (Etym. a *didymos*, quia sporidia bilocularia). — Perithecia tecta, membranacea, globoso-depressa, breve papillata, sæpius caulogena. Asci 4-8-spori, paraphysati. Sporidia ovoidea v. ellipsoidea v. suboblonga, uniseptata, hyalina. — A *Sphærella* differt paraphysum præsentia, peritheciisque plerumque paulo majoribus; a *Didymosphæria* sporidiis jugiter hyalinis.

A) In Dicotyledoneis.

I. *Arboricolæ* et *fruticicolæ*.

1. **Didymella cladophila** (Niessl) Sacc. *Didymosphæria cladophila* Niessl Neue Kernp. p. 199. — Peritheciis laxe gregariis, peridermio pallescente tectis, media magnitudine, hemisphæricis, tandem vertice depressis, papillatis, atris, coriaceis; ascis clavato-cylindraceis stipite brevi, 8sporis, 83-102 = 5-6; sporidiis monostichis 2126

vel hinc inde distichis, lanceolato-ovoideis, plerumque rectis, medio septatis valde constrictisque, hyalinis, 10–13 ≃ 4–5; paraphysibus angustis, simplicibus vel laxe ramosis.

Hab. in ramis siccis Genistæ germanicæ pr. Brünn Austriæ et Cytisi nigricantis in sylva Montello Italiæ bor. — Sporidiorum loculus superior inferiore paulo crassior.

2. **Didymella Genistæ** (Fuck.) Rehm Ascom. Ill. n. 97. *Sph. Genistæ* Fuck. Symb. myc. p. 114. — 2127
Peritheciis sparsis, tectis, globosis, minutis, atris, ostiolis brevibus, perforatis, demum prominulis; ascis clavatis, stipitatis, 8sporis, 150 ≃ 12, paraphysibus filiformibus obvallatis, octosporis; sporidiis ovato-clavatis, medio parum constrictis, didymis, hyalinis, 20–22 ≃ 6–9.

Hab. in ramis exsiccatis Genistæ germanicæ, raro prope Œstrich Rhenogoviæ et in Austria. — Non confundenda cum *Didymosphæria Genistæ* Fuck, nec cum *Didymella cladophila* (Niessl) quæ ascis cylindricis pollet.

3. **Didymella glomerulata** (Fuck.) Sacc. *Sph. glomerulata* Fuck. Symb. 2128
myc. p. 113. — Peritheciis seriato-glomeratis, sub epidermide nidulantibus, demum erumpentibus, minutis, globosis, aterrimis, ostiolo brevi, cylindraceo, prominulo; ascis fasciculatis, sessilibus, oblongis, 8sporis, 64 ≃ 16; sporidiis ovato-oblongis, inæqualiter didymis, hyalinis, 20 ≃ 8; spermatiis cylindraceis rectis.

Hab. sub epidermide sarmentorum Rubi fruticosi, quæ latissime obducit, prope Œstrich Rhenogoviæ.

4. **Didymella Mesnieriana** (Rehm et Thüm.) *Didymosphæria Mesnie-* 2129
riana Rehm et Thüm. Contr. Myc. Lusit. n. 303. — Peritheciis dimidiatis, sparsis, emersis, sessilibus, atris, apice haud papillatis, triangulariter laciniatis, parvulis; ascis longe cylindraceis, subarcuatis, brevistipitatis, utrinque angustatis, apice acutatis, hyalinis, octosporis, 90 ≃ 7–8; sporidiis fusiformibus, subcurvatis, biseriatis, didymis, multiguttulatis, medio non constrictis, hyalinis, 18 ≃ 5.

Hab. in Rubi fruticosi sarmentis emortuis putridis, Coimbra Lusitaniæ (Mesnier).

5. **Didymella applanata** (Niessl) Sacc. *Didymosphæria applanata* 2130
Niessl Neue Kernp. p. 129. — Peritheciis disseminatis vel sparse gregariis, peridermio immutato vel expallente tectis, minutis, rotundatis, fere clypeiformi-applanatis, vertice umbilicatis, papillatis, fusco-atris, coriaceis; ascis cylindraceis vel cylindraceo-clavatis, stipite brevi obliquo, 60–70 ≃ 10–12; sporidiis octonis, distichis raro monostichis, obovato-oblongis, utrinque late rotundatis, medio sep-

tatis constrictisque, loculo superiori paulo inflato, hyalinis, 16 ≃ 5–6; paraphysibus gracilibus ascos superantibus, simplicibus.

Hab. in sarmentis nondum emortuis Rubi idæi, Shrewsbury Britanniæ (PLOWRIGHT).

6. **Didymella Sphærellula** (Peck) Sacc. *Sphœria* (obtectæ) *Sphœrellula* Peck 30 Rep. on the St. Mus. Mus. New York. — Peritheciis minutis, sparsis, v. seriatis, epidermide denique perforata tectis; ascis crassis, obtusis, sursum sensim attenuatis, basi abrupte contractis; sporidiis stipitatis, fusoideis, uniseptatis, 12–15 μ. longis, hyalinis. 2131

Hab. in ramis emortuis dealbatis Aceris Pensylvanici, in montibus Catskill Americæ borealis. — Asci *Sphœrellœ* fere ad instar.

7. **Didymella vexata** Sacc. Mich. II. 58. — *Didymosphœria obliterascens* Fuck. Symb. Mycol. App. I. 301, nec B. et Br. — Peritheciis lenticularibus, subvelatis 250 μ. diam., contextu parenchymatico melleo-fusco, ostiolo vix prominulo pertuso; ascis clavatis, crassis, deorsum attenuatis, 95–110 ≃ 30–36, lumine apice coarctato, paraphysibus guttulatis obvallatis, 8-sporis; sporidiis distichis, obovatis, 25–27 ≃ 14–16, 1-septatis, non constrictis, hyalinis (denique luteolis). — Sec. Fuck. pycnidium sistit *Diplodiam mamillanam* Fr. 2132

Hab. in ramulis corticatis Corni sanguineæ in Germania (FUCKEL) et Gallia (LETENDRE).

8. **Didymella Corni** (Sow.) Sacc. *Sphœria Corni* Sow. Fung. t. 370, fig. 5, *Sph. Corni-Suecicæ* Fr. Exs. n. 409 (teste Cooke Handb. n. 2733). — Peritheciis sparsis, atro-nitidis, depressis in matrice dealbata, ostiolo vix manifesto; ascis oblongis, curvatis, octosporis; sporidiis oblongo-clavatis, 1-septatis, hyalinis (teste Fuck. Symb. p. 114). 2133

Hab. in ramis exsiccatis Corni Suecicæ et C. sanguineæ in Suecia, Britannia et Germania. — *Sph. Corni* sec. West. est phæospora, prob. *Anthostomella*, ergo aliena.

9. **Didymella Barbieri** (West.) Sacc. *Amphisphœria ericeti* Sacc. et Speg. Mich. I, p. 374, F. it. t. 321, *Sphœria Barbieri* West., Lamb. Fl. myc. Belg. II, p. 308. — Peritheciis sparsis v. subgregariis, initio epidermide tumidula velatis, basi ligno insculptis, conoideis, 1/3 mill. diam., quandoque subcompressis, nigris, nitidissimis, ostiolo obtuse rotundato vix pervio; contextu coriaceo-carbonaceo, denso; ascis cylindraceis, 85–100 ≃ 15, apice, lumine angustato, rotun- 2134

dato, breve crassiuscule stipitatis, paraphysibus filiformibus, sæpe ramulosis obvallatis, octosporis; sporidiis oblique monostichis v. distichis, biconicis, medio constrictis, 18–20 ≃ 7–8, 2- v. indistincte 4-nucleatis, strato mucoso obductis, hyalinis.

Hab. in ramis emortuis Callunæ vulgaris, Beverloo Belgii, Brionne Galliæ, Conegliano Ital. bor. (Spegazzini). — Var. *minor;* ascis cylindraceis, 75 ≃ 10–12, paraphysatis; sporidiis oblique 1-stichis, clavulatis, bilocularibus, non constrictis, muco diu obvolutis, 12–14 ≃ 4, cum muco 15–16 ≃ 8, hyalinis. In ramis induratis denique decorticatis Callunæ vulgaris, Brionne Galliæ.

10. **Didymella analepta** (Ach.) Sacc. *Arthopyrenia analepta* (Ach.) Körb. Parerg. lich. 389, Mass. Lich. ital. n. 185–186, Mich. II, p. 248. — Peritheciis gregariis, cuticulâ nigrificatâ velatis, globoso-depressis, ostiolo dein umbilicato pertusis; ascis fusoideis, 65–70 ≃ 17–20, pseudoparaphysatis, octosporis; sporidiis oblongo-didymis, 20–25 ≃ 8, 1-septatis, leniter constrictis, 4-guttulatis, hyalinis, initio strato mucoso obvolutis. 2135

Hab. in ramulis corticatis Punicæ, Pyri, Cratægi, Cydoniæ, Sorbi, Fagi, in Italia, Germania, Gallia, etc. — Thallus nullus, ergo species potius fungosa quam lichenosa.

11. **Didymella Picconii** (De Not.) Sacc. *Sphærella Picconii* De Not. Recl. Pyr. in Comm. II, 487. — Epidermide tecta, minutissima, sparsa, punctiformis, atra; peritheciis rotundatis, lævibus, cellulis, ægre percipiendis contextis, ostiolo exiguo hiantibus; ascis tenuibus, clavulatis, octosporis; paraphysibus filiformibus; sporidiis fusoideis, junioribus nucleolis quator fœtis, demum bilocularibus, hyalino-luteolis, loculo superiore ad dissepimentum nonnihil turgescente, fere nodulosis. 2136

Hab. in ramulis siccis Abietis, Albisola marina Italiæ borealis (Piccone). — An potius *Didymosphæria?*

12. **Didymella Lapponum** (De Not.) Sacc. *Sphærella Lapponum* De Not. et Car. Recl. Pir. in Comm. II, p. 486. — Corticola, epidermide tecta, sparsa, punctiformis, atra; peritheciis e lenticulari rotundatis, hemisphærio supero incrassatis, cæterum tenuibus, osculo minuto hiantibus, in sicco collabascentibus; ascis crassiusculis, clavato-teretiusculis, octosporis; paraphysibus coalescentibus; sporidiis oblongis, bilocularibus, hyalino-luteolis, episporio crassiusculo præditis. 2137

Hab. in Salice Lapponum Valdobbia, Ital. bor. (Carestia). — An *Didymosphæria?*

13. **Didymella Purpurearum** Auersw. Myc. Eur. t. 12, fig. 168 sub *Laptosphæria*. — Peritheciis.....; ascis clavatis, utrinque obtusis, sessilibus, paraphysibus filiformibus obvallatis, octosporis; sporidiis distichis, oblongis, constricto-1-septatis, hyalinis, loculo infero paulo angustiore. 2138

Hab. in foliis Salicis purpureæ in Germania. — An *Sphærella* indiligenter observata?

14. **Didymella nummularia** (Bagn.) Sacc., *Sphæria nummularia* Bagn. Mic. Rom. Cent. II, p. 17, t. IV, fig. 3. — Peritheciis exiguis, subepidermicis, erumpentibus, sparsis, fuscis, globoso-depressis, fere nummiformibus, subtus concaviniculis; ostiolo amplo impresso; nucleo albido crasso; ascis ovoideo-clavatis, oblongatisque 170 ≃ 28, copiose paraphysatis; sporidiis, oblongis, uniseptatis, vix constrictis, utrinque obtusiusculis, hyalinis, 28 ≃ 9–10. 2139

Hab. in ramulis Staphyleæ pinnatæ in hortis prope Romam Italiæ.

15. **Didymella recedens** (Cooke et Harkn.) Sacc. *Sphæria recedens* C. et H, Grevillea 1881, p. 130; Niessl in M. Univ. n. 1748, sec. Cooke (nec in diagnosi allata). — Peritheciis gregariis, corticolis, peridermio pustulato tectis, minutis, papillatis; ascis elongatis, 100 μ. longis; sporidiis anguste fusoideis, uniseptatis, hyalinis, 18–20 ≃ 3, loculis facile secedentibus. 2140

Hab. in cortice Eucalypti in Lusitania. — Species Niessleana est *Calosphæria*. Cfr. Syll. nostra n. 408.

16. **Didymella segna** (C. et Ell.) Sacc. *Sphæria* (Obtectæ) *segna* C. et E. in Grevill. VI, p. 95, t. 100, fig. 33. — Tecta; peritheciis gregariis, corticem elevatum, perforantibus; ascis cylindrico-clavatis; sporidiis biseriatis, anguste ellipticis, uniseptatis constrictis, hyalinis, 15 ≃ 7. 2141

Hab. in ramis Nyssæ, New Jersey, Amer. bor.

17. **Didymella castanella** (C. et Ell.) Sacc. *Sphærella* (Obtectæ) *castanella* C. et Ell. in Grev. VII, p. 8. — Peritheciis epidermide lacerata tectis, hinc inde gregariis; ascis clavatis; sporidiis biseriatis, 16 ≃ 3, cylindricis, uniseptatis, hyalinis. 2142

Hab. in ramis Castaneæ in New Jersey Amer. bor.

18. **Didymella Chionanthi** (B. et Br.) Sacc. *Sphæria* (Obturatæ) *Chionanthi* B. et Br. Fungi of Ceyl. n. 1114. — Peritheciis minutis epidermide hyalina tectis; sporidiis uniseptatis, 20 ≃ 7,5, spermatiis **aculeatis**, 14–20 μ. long. 2143

Hab. in ramis Chionanthi zeylanicæ, Damboul, Ceylon. Greges minutos flavidos format.

19. **Didymella Celtidis** (B. et C.) Sacc. *Sphæria Celtidis* B. et C. 2144
North Amer. Fungi n. 930. — Gregaria, minuta, ostiolo prominulo; ascis brevibus tetrasporis; sporidiis oblongis, uniseptatis.

Hab. in ramis Celtidis in Carolina infer. Amer. bor. — Perithecia dense stipata sed distincta, peridermio leniter pustulato tecta.

20. **Didymella cadubrina** Speg. Nova Add. n. 70. Mich. II, p. 248. — 2145
Peritheciis minutis, lenticulari-globosis, subepidermicis, primo tectis, dein semiliberis, atris, ostiolatis, 150–180 μ. diam., contextu membranaceo sub-carbonaceo, olivaceo-atro; ascis cylindraceis, breve stipitatis, superne rotundatis, ac crassiuscule tunicatis, 100–110 ≃ 6–7 paraphysibus septulatis longioribus obvallatis, octosporis; sporidiis monostichis, ellipticis, medio uniseptato-constrictis, crassiuscule tunicatis non vel 2-guttulatis, hyalinis, 12 ≃ 5.

Hab. in ramulis emortuis Myricariæ germanicæ in alveo Plavis, Cadore, Ital. bor.

21. **Didymella Cadubriæ** Sacc. *Didymosphæria Cadubriæ* Sacc. Fun- 2146
gi Ven. Ser. II, p. 324, Fungi ital. t. 207. — Peritheciis gregariis sub epidermide ramulorum nidulantibus, basique ligno infossis, globulosis, 180–200 μ. diam., atris, ostiolo minuto papillato, epidermidem vix perforante; ascis clavatis apice rotundatis, basi breve noduloso-stipitatis, 90–100 ≃ 12–15, paraphysibus copiosis, filiformibus ramulosis obvallatis, 8-sporis; sporidiis distichis vel oblique monostichis, oblongo-fusoideis, 20–22 ≃ 5–6, rectis curvulisve, hyalinis, initio 4-guttatis, tandem constricto-1-septatis, crasse 2-nucleatis.

Hab. in ramulis Berberidis vulgaris in Cadore, Belluno Ital. bor. — Etsi sporidia hyalina, tamen matura videntur: hæc cum sporidiis immaturis *Lept. vagabundæ* Sacc. non confundi possunt, nam in hac 4-torulosa sunt.

22. **Didymella diaporthoides** (Speg.) Sacc., *Didymosphæria diapor-* 2147
thoides Speg. Fungi Arg. Pug. III, n. 58. — Peritheciis globosis, $^1/_4$–$1^1/_3$ mill. d., densiuscule sparsis, subgregariis, cortici immutato immersis, linea stromatica plus minusve visibili late per lignum excurrente ornatis, tenuiter coriaceo-membranaceis, contextu indistincte parenchymatico, olivaceo, ostiolo conico, superficiem attingente v. exertiusculo obtuso, atro-nitente donatis; ascis cylindraceo-subclavatis, apice obtuse rotundatis, deorsum breve ac crasse attenuato-pedicellatis, 120–140 ≃ 12, octosporis, paraphysibus fili-

formibus, densis obvallatis; sporidiis di-tristichis, cylindraceo-subellipticis, utrinque obtuse rotundatis, medio constricto-uniseptatis, 25–26 ≃ 6–7, loculis medio subconstrictis, 2-guttulatis, hyalinis.

Hab. in ramulis dejectis putrescentibus Erythrinæ Cristæ-galli in umbrosis a la Recoleta, prope Buenos Aires Amer. merid.

23. **Didymella hyperborea** (Karst.) Sacc. *Sphæria hyperborea* Karst. Fungi Spetsb. n. 42. — Peritheciis sparsis, hypophyllis, parenchymati innatis, epidermide nigrefacta, demum fissa tectis, subsphæroideis, basi cupulato-collapsis, ostiolo minutissimo pertusis, atris, madefactis, fuscis, glabris, lævibus, circiter 250 μ. lat.; ascis cylindraceo-clavatis, subsessilibus, obturaculo jodo dilute cœrulescente, 90–100 ≃ 11–12, octosporis; sporidiis monostichis, ellipsoideis, uniseptatis, hyalinis, 14–17 ≃ 7–8; paraphysibus filiformibus, guttulatis, gracilibus. 2148

Hab. in foliis Andromedæ tetragonæ exsiccatis ad Green Harbour, Spitzberg.

24. **Didymella Oleandri** (Dur. et Mont.) Sacc. *Sph. Oleandri* Dur. et Mont. Fl. Alg., I, p. 528, Mont. Syll. Crypt. n. 824. — Subtecta; peritheciis immersis, ovoideis, tandem depressis, albo-farctis, poro pertusis, ramum inquinantibus; ascis cylindricis 80 ≃ 6; sporidiis octonis, oblongis, medio uniseptatis, 10–12 ≃ 5. 2149

Hab. in ramis Nerii Oleandri, Bone Algeriæ-(Durieu).

25. **Didymella sepincolæformis** (De Not.) Sacc. *Sphærella sepincolæformis* De Not. Recl. Piren. in Comm. II, p. 486. — Epidermide tecta, sparsa, punctula atra, halone pallescente redimita præbens; peritheciis e lenticulari-rotundatis, tenuibus, atris, ostiolo vix conspicuo dehiscentibus; ascis clavatis, octosporis; paraphysibus filiformibus, crassiusculis; sporidiis oblongo-pyriformibus, hyalinis, bilocularibus, loculo infero exiguo. 2150

Hab. in ramis Rosæ alpinæ, Valsesia Italiæ borealis (Carestia).

26. **Didymella Dryadis** Speg. Dec. Mycol. 89, Mich. II, p. 161, nec *Sphæria Dryadis* Fuck. quæ *Læstadia rhytismoides.* — Epiphylla; peritheciis majusculis, 140–160 μ. diam., in macula indeterminata, primo fusca, dein arescendo grisea, semiimmersis, globosis, aterrimis, perforatis, demum depressis; ascis fasciculatis, basi ventricosis, breve pedicellatis, 60–65 ≃ 12–14, paraphysibus filiformibus obvallatis, octosporis; sporidiis oblongo-ellipsoideis, diu continuis granuloso-farctis, dein medio septatis, parumque constrictis, hyalinis, 15 ≃ 5, loculis interdum 1-guttulatis. 2151

Hab. ad folia viva v. arida Dryadis octopetalæ in Monte Borgà, Cimolais, Italiæ borealis.

27. **Didymella strobiligena** (Desm.) Sacc. *Sphæria* (subtecta) *strobiligena* Desm. 13 Not. 1846, p. 75. — Erumpens, atra, epidermide, lacerata cincta; peritheciis gregariis, subconfluentibus, minutis, rugulosis, rotundatis, ovatis vel subdifformibus, nucleo albo farctis, rima subdehiscentibus; ascis clavatis; sporidiis hyalinis, pyriformibus, uniseptatis. 2152

Hab. ad conos dejectos Pini Laricionis in Gallia. — Sec. Crouan Finist. pag. 28: asci 24-spori et tunc an forte novi generis typus?.

II. *Herbicolæ.*

28. **Didymella Vincetoxici** (De Not.) Sacc. *Amphisphæria Vincetoxici* De Not. Sf. ital. p. 72, t. 76. — Peritheciis sparsis, cortice decedente omnino nudis, superficialibus, cubilibus læviter hærentibus, globoso-depressis, atro-piceis, sub lente rugulosis, vertice ostiolo brevi, cylindraceo, osculo lato hiante instructis, cellulis rotundatis fuscis, stratosis ægre conspicuis contextis, in sicco collabascentibus, at simul fragilibus; nucleo pallido; ascis teretibus, copiosis, 8-sporis, 130 ≃ 12, junioribus plasmate lutescente farctis; paraphysibus coalescentibus; sporidiis oblongis 2-locularibus vix medio constrictis, hyalino-perlaceis, 20 ≃ 6,5. 2153

Hab. in caulibus exsiccatis Cynanchi Vincetoxici, Colle di Tenda Italiæ borealis.

29. **Didymella effusa** (Niessl) Sacc., *Didymosphæria effusa* Niessl Neue Kernp. p. 130. — Peritheciis disseminatis in mycelio nigerrimo subcorticoli effuso nidulantibus; peridermio griseo tectis, media magnitudine, hemisphæricis vel subglobosis, basi depressis, atris, carbonaceo-coriaceis, duriusculis, numquam collabascentibus, ostiolo brevi, conico; ascis cylindraceo-clavatis, stipite brevi, 8sporis 62–78 ≃ 10–12; sporidiis distichis, demum sæpe monostichis, ovoideo-oblongis, plerumque inæquilateralibus, didymis, medio constrictis, hyalinis, 14–20 ≃ 6–7; paraphysibus gracilibus exiguis. 2154

Hab. in caulibus emortuis Sambuci Ebuli et Cucurbitæ Peponis in Moravia et Italia boreali.

30. **Didymella nemoralis** Sacc. Mich. p. 376. — Peritheciis in maculis foliorum decoloratis, ochraceo-marginatis, epiphyllis, paucis, globoso-lenticularibus innato-erumpentibus, 90–100 μ. diam. pertusis; ascis cylindraceo-clavatis, apice rotundatis, 50 ≃ 8, paraphy- 2155

sibus filiformibus obvallatis, 8sporis; sporidiis distichis, oblongis v. subfusoideis, 12–15 ≃ 4, constricto-1-septatis, quandoque curvulis, hyalinis.

Hab. in foliis languidis Hyperici Androsæmi, Selva, Ital. bor. — Peraffinis *Didymellæ exiguæ* Niessl, cujus forte varietas.

31. **Didymella exigua** (Niessl) Sacc. *Didymosphæria exigua* Niessl 2156
Neue Kernp. p. 165. — Peritheciis sparsis, peridermio immutato tectis, hemisphæricis, atris, membranaceo-coriaceis, minutis, ostiolo papillæformi vel subconoideo; ascis clavatis stipite brevi, 8sporis, 60–73 ≃ 8–10; sporidiis distichis, fusoideis, utrinque obtusiusculis leniter curvatis, cymbiformibus, raro rectis, medio septatis constrictisque, hyalinis, guttulatis, 14–17 ≃ $4^1/_2$–5; paraphysibus, paucis, ascos superantibus, tenellis, fugacibus.

Hab. in caulibus Dipsaci, Verbenæ officinalis, Stenactidis annuæ in Germania, Italia et Gallia.

32. **Didymella media** Sacc. Mich. II, p. 57. — A *D. exigua* differt 2157
ascis majoribus, 80–90 ≃ 12–14, æque paraphysatis; sporidiis fusoideis, rectis curvulisve, majoribus, 20 ≃ 5–6, 1-septatis, non constrictis, 4-guttulatis, hyalinis; peritheciis lenticularibus paulo majoribus, contextu parenchymatico fuligineo.

Hab. in caule Verbenæ officinalis, Rouen Galliæ (Letendre). — Inter *D. effusam* (Niessl) et *D. exiguam* (Niessl) media.

33. **Didymella planiuscula** (B. et Br.) Sacc. *Sphæria planiuscula* B. 2158
et Br. in Ann. N. H. n. 891, t. 11, fig. 35, Cooke Handb. n. 2729. — Peritheciis sparsis, planiusculis, ostiolis obscuris, epidermide velatis; ascis clavatis; sporidiis biseriatis, oblongis, uniseptatis, prope septum leniter incrassatis, loculo altero sæpius paulo turgidiore, 15 μ. longis.

Hab. in caulibus emortuis herbarum in Britannia.

34. **Didymella hæmatites** (Rob. et Desm.) Sacc., *Sphæria hæmatites* 2159
Rob. et Desm. Ann. Scienc. nat. 1851, XVI, p. 311. — Peritheciis sparsis, perexiguis, brunneis dein nigricantibus, subglobosis, siccis subcupulatis, matrice cruentata insertis, epidermide velatis, ostiolo poriformi; ascis stipitatis, cylindraceis, 8sporis, 90 ≃ 11; sporidiis distichis, oblongo-lanceolatis, utrinque obtusis, subinæquilateralibus, septo intermedio obscuro, hyalinis, 20 ≃ 5.

Hab. in sarmentis exsiccatis Clematidis Vitalbæ in Gallia, Belgio et Germania. — Sec. cl. Niessl ad *Leptosphæriæ* genus spectaret sed descriptio Desm. et Fuck. non convenit.

35. **Didymella Hellebori** (Chaill. et Fr.) Sacc. *Sph. Hellebori* Chaill. 2160

in Fr. S. M. II, 512, Fuck. Symb. mycol. p. 112, t. VI, fig. 29, Auersw. Myc. Eur. Pyr. fig. 169, *Dothidea Prostii* Desm. Ann. Scienc. nat. 1847, VIII, p. 175. — Immerso-innata, peritheciis tectis subglobosis, atris, demum evacuatis persistentibus; ascis subcylindraceis, stipitatis, 8sporis, 88 ≃ 8; sporidiis submonostichis, oblongo-subclavatis, inæqualiter didymis, medio constrictis, parte inferiori obconica, parte superiori ovata, antice apiculata, hyalinis, 20 ≃ 8.

Hab. in caulibus siccis Hellebori fœtidi prope Geisenheim Germaniæ et Hamerenne Luxemburgiæ nec non in Gallia. — Perithecia minuta, ut puncta minima epidermide cinerascente tecta prominent, opaca, cum matrice concreta; evacuata intus atra.

36. **Didymella eupyrena** Sacc. Michel. II, p. 161. — Peritheciis gre- 2161
gariis, initio epidermide velatis, dein erumpentibus, globoso-depressis, $^1/_3$-$^1/_2$ mill. diam., distincte breve papillatis, atris; contextu parenchymatico solidiusculo, fuligineo; ascis cylindraceo-clavatis breve stipitatis, apice tunica integra rotundatis, 90-100 ≃ 15-18, octosporis paraphysibus subcoalescentibus evanidisque; sporidiis distichis obovato-oblongis, 15-19 ≃ 7-8, constricto-1-septatis, loculo superiore majore, minute varie guttulatis, hyalinis.

Hab. in caulibus Urticæ dioicæ in alpinis Vette di Feltre, Ital. bor. — A *D. effusa* Niessl præcipue peritheciis multo majoribus diversa.

37. **Didymella? hyporrhodia** Sacc. Mich. II, 316. — Peritheciis dense 2162
gregariis, globoso-lenticularibus, epidermide velatis, lignique superficiei cinnabarinæ factæ adnatis, 200 μ. diam., poro pertusis; ascis tereti-clavatis, 60 ≃ 10, paraphysatis, sporidiis (immaturis) oblongis, hyalinis.

Hab. in caule Umbelliferarum majorum, Rouen Galliæ (Malbranche). — Etsi immatura, ideoque incerta species, ob matricis characterem insignem notanda visa est.

38. **Didymella operosa** (Desm.) Sacc., *Sphæria* (caulicola) *operosa* 2163
Desm. 16 Not. 1849, p. 354. — Minuta, sparsa; peritheciis tectis, rotundatis, nigris, subnitidis, dein depressis, rugulosis; ostiolo papilliformi erumpente; nucleo albido; ascis subclavatis, 60-64 μ. long.; sporidiis oblongis subfusiformibus, uniseptatis, 14-15 μ. long.

Hab. ad caules siccos Angelicæ sylvestris in Gallia.

39. **Didymella Trifolii** (Fuck.) Sacc., *Sph. Trifolii* Fuck. Symb. myc. 2164
p. 112. — Peritheciis sparsis seu seriatim dispositis, *Pleosporæ herbarum* magnitudine, epidermide nigrefacta tectis, globosis, de-

pressisve, atris; ostiolis minimis, globosis, atris prominulis; ascis oblongis, stipitatis, 8sporis, 80 ≃ 10; sporidiis submonostichis, didymis, oblongis, medio constrictis, utrinque attenuatis, obtusiusculis, loculis uniguttulatis, hyalinis, 11 ≃ 5.

Hab. in caulibus siccis, adhuc stantibus Trifolii pratensis prope Œstrich Rhenogoviæ. — Caules omnino obducit atratque.

40. **Didymella onosmodina** (P. et C.) Sacc. *Sphæria* (caulicolæ) *onosmodina* P. et C. 30 Rep. on the St. Mus. New York. — Perithe- 2165
ciis numerosis, minutis, initio epidermide tectis, demum subnudis, depressis, nigris, ostiolo pertuso; ascis cylindraceis; sporidiis stipatis v. biseriatis, oblongo-ellipticis, uniseptatis, hyalinis, 15–17,5 μ. longis, loculis plerumque inæqualibus.

Hab. in caule emortuo Onosmodii Caroliniani, Buffalo, Amer. bor. (Clinton).

41. **Didymella superflua** (Fuck.) Sacc. Mich. II, 316, Auersw. Syn. 2166
Pyr. eur. p. 14, t. 11, fig. 153, Fuck. Symb. myc. p. 102, Sacc. Myc. Ven. Spec. tab. IX, fig. 23–25, *Didymosphæria superflua* (Fuck.) Niessl in Kunze Fungi sel. n. 258. — Peritheciis sparsis, epidermidi innatis, subsphæroideis, ostiolo minuto hiantibus, atris, 150–200 μ. lat.; ascis breviter pedicellatis, clavatis, 62–65 ≃ 12–13, octosporis, parce paraphysatis; sporidiis distichis, subovoideo-oblongatis, medio uniseptatis, ad septum levissime constrictis, hyalinis, 14–16 ≃ 4–6, loculo inferiore minore. — Spermogonia *Phomam* referentia, peritheciis ascophoris immixta iisque duplo minora; spermatiis cylindraceis, curvatis, minutis.

Hab. in caulibus emortuis Urticæ, Lathyri, Solani, Umbelliferarum, Humuli etc. in Germania, Gallia, Britannia et Italia.

42. **Didymella lathyrina** (B. et C.) Sacc. *Sphæria lathyrina* B. et C. 2167
North Amer. Fungi n. 859. — Minutissima; ascis oblongis; sporidiis octonis oblongis uniseptatis, apud septum constrictis, 7–8 μ. longis, distichis.

Hab. in caule Lathyri latifolii in Pensylvania Amer. bor.

43. **Didymella pusilla** (Niessl) Sacc. *Didymosphæria pusilla* Niessl 2168
Hedw. 1881, pag. 55. — Peritheciis sparsis, minutis, subglobosis, atris, glabris, ostiolo papillæformi vel subconico erumpentibus; ascis obovato-oblongis, 56–75 ≃ 19–24, stipite brevi; sporidiis octonis, farcte 2–3stichis, oblongis, rectis utrinque obtusis, subhyalinis, 20–24 ≃ 5–7; paraphysibus paucis.

Hab. in pedunculis florum jam emortuis Drabæ aizoidis in passu Albula, Graubinden Helvetiæ (Winter).

44. **Didymella intercepta** (Kalch. et Cooke) Sacc., *Sphæria intercepta* K. et C. Grev. 1880, IX, p. 29, t. 137, fig. 30. — Sparsa, cuticula cinerascente tecta; peritheciis subglobosis; ostiolo atro emergente; ascis clavatis; sporidiis biseriatis, ellipticis uniseptatis, profunde constrictis, loculis subglobosis, hyalinis, 22–25 ≃ 12. 2169

Hab. in caulibus Senecionis longifolii in Africa australi.

45. **Didymella Fuckeliana** (Pass.) Sacc. Mich. I, p. 440, Fungi ital. tab. 435, *Sphæria tritorulosa* Plowr. Sph. Brit. cent. II, nec B. et Br. — Peritheciis subcutaneo-erumpentibus, lenticularibus, $^1/_5$–$^1/_4$ mill. d., distincte papillatis, contextu parenchymatico denso; ascis cylindraceis, breve stipitatis, apice, tunica integra, rotundatis, 70–90 ≃ 8, parce paraphysatis, octosporis; sporidiis breve fusoideis, 12–14 ≃ 4–5, 1-septatis, non constrictis, hyalinis. 2170

Hab. in caulibus emortuis Epilobii Dodonæi, Vigheffio prope Parma, Italiæ bor. (Passerini), King's Lynn (Plowright). — *Sphæria tosta* B. et Br., sec. descriptionem, huc spectare videtur, sed hujus nominis specimina Cookeana cum *Diuporthe Epilobii* Fuck. congruunt.

46. **Didymella Epilobii** (Fuck.) Sacc. *Sphæria Epilobii* Fuck. Symb. mycol, p. 113. — Peritheciis gregariis, primo tectis, demum liberis, *Pleospora herbarum* duplo majoribus, lentiformibus, convexis, demum planis, atris; ostiolis exsertis, cylindraceis, obtusis, perforatis, concoloribus, peritheciorum diametrum dimidium æquantibus; ascis cylindraceis, stipitatis, 136 ≃ 12, 8sporis; sporidiis monostichis, ovatis, subobliquis, uniseptatis, medio vix constrictis, multiguttulatis, hyalinis, 18–24 ≃ 10. 2171

Hab. in caulibus siccis Epilobii angustifolii, rarius prope Œstrich Rhenogoviæ.

47. **Didymella tosta** (B. et Br.) Sacc. *Sphæria tosta* B. et Br. Ann. N. H. n. 648, t. 11, f. 34, Cooke Handb. n. 2731, nec F. br. — Peritheciis minutis, globoso-depressis, pallido-fuscis, epidermide circa ostiolum brunnea tectis; ascis linearibus; sporidiis monostichis, brevibus, elliptico-navicularibus vel subclavatis, uniseptatis, non constrictis subhyalinis. 2172

Hab. in caule languido Epilobii hirsuti in Britannia — Habitus *Antosthomellæ Tomici.*

48. **Didymella commanipula** (B. et Br.) Sacc. *Sphæria commanipula* B. et Br. in Ann. N. H. n. 645, t. 11, f. 31, Cooke Handb. 2730. 2173

— Peritheciis sparsis, initio tectis, globulosis, dein subdenudatis, collabascentibus, ostiolo exiguo; ascis cylindraceis; sporidiis biseriatis, brevibus, elliptico-cymbiformibus, uniseptatis, subinde constrictis, nucleatisque.

Hab. in capsulis emortuis Scrophulariæ, Forfarshire Britanniæ.

49. **Didymella Bryoniæ** (Fuck.) Rehm Ascom. Ill. n. 99, *Sph. Bryoniæ* Fuck. Symb. p. 112, *Sphærella Bryoniæ* Auersw. Myc. Eur. Pyr. pag. 15, fig. 56. — Peritheciis sub epidermide nidulantibus, demum subliberis, gregariis, minutissimis, 260–280 μ. diam., globoso-depressis, papillatis, atris; ascis oblongis basi attenuatis, obtusis, 8sporis, 62 ≃ 12; sporidiis distichis, oblongo-subclavatis, inæqualiter didymis, loculo superiori majori, antice acutiusculo, inferiori obconico, obtuso, hyalinis, 14–16 ≃ 5. 2174

Hab. in sarmentis siccis Bryoniæ dioicæ in Germania, Britannia, Helvetia. — Var. *astragalina* Rehm Ascom. Ill. n. 99: ascis clavatis, paraphysatis, 75 ≃ 12; sporidiis inæqualiter didymis, distichis, 12–14 ≃ 6. In caulibus Astragali in Germania.

50. **Didymella Catariæ** (C. et E.) Sacc. *Sphæria Catariæ* C. et Ell. in Grev. V, p. 95. — Minuta, gregaria, epidermide tecta; ostiolis papillæformibus; ascis clavatis; sporidiis ellipticis, acuminatis, biseriatis, uniseptatis, hyalinis, 20 ≃ 8. 2175

Hab. in caulibus Nepetæ cataricæ, New Jersey Amer. bor. — *Didymellæ incommiscibili* affinis.

51. **Didymella incommiscibilis** (B. et C.) Sacc. *Sphæria incommiscibilis* B. et C. North Amer. Fungi n. 960. — Minuta, epidermide tecta; ostiolis papillæformibus prominulis; ascis linearibus; sporidiis breve fusiformibus, utrinque acuminatis, demum uniseptatis, 20 μ. longis. 2176

Hab. in caulibus pedunculisque plantarum herbacearum in montibus Virginiæ Americæ borealis.

52. **Didymella carduicola** (Cooke) Sacc. *Sphæria* (caulicolæ) *carduicola* Cooke New Zeal. Fungi in Grev. VIII, pag. 67. — Sparsa, tecta; peritheciis subglobosis, elevatis, atris, demum epidermide perforantibus; ascis subcylindricis; sporidiis ellipticis, uniseptatis, constrictis, 15–18 ≃ 7. 2177

Hab. in caulibus Cirsii lanceolati v. affinis, Maungaroa Novæ Zelandiæ.

53. **Didymella? caulicola** Moug. sub *Sphæria*, Roum. F. G. n. 573, Wallr. Fl. crypt. n. 3716? — Peritheciis gregariis, epidermide ve- 2178

latis, minutis, lenticularibus, vertice convexiusculo, nitido, nigro, prominulis; fructificatione immatura hucusque mihi visa.

Hab. in caulibus Dipsaci sylvestris in Alsatia (Caspary).

54. **Didymella? aggregata** (Lasch.) Sacc. *Sphæria aggregata* Lasch. 2179
in Rabh. Herb. myc. II, 541 et in West. Prodr. Fl. Bot. Fung. p. 52. — Peritheciis erumpentibus, subrotundis, nigris, nitidis, seriatim aggregatis; nucleo albo; ascis subclavatis, octosporis; sporidiis cylindraceis, monoblastis aut uniseptatis.

Hab. in caulibus emortuis Euphrasiæ Odontitis, Zuid-Beveland in Hollandia.

55. **Didymella subexerta** (C. et E.) Sacc. *Sphæria* (caulicolæ) *sub-* 2180
exerta C. et Ell. in Grev. VII, p. 42. — Sparsa, tecta; peritheciis atris; ostiolis elongatis, obtusis, exsertis; ascis subclavatis; sporidiis anguste ellipticis, biseriatis, uniseptatis, hyalinis, 12–14 ≃ 5.

Hab. in caule Mulgedii, New Jersey Amer. bor. — Affinis *Didymellæ Catariæ*, sed sporidia tenuiora.

B) *In Monocotyledoneis.*

56. **Didymella proximella** (Karst.) Sacc. *Sphærella proximella* Karst. 2081
Myc. Fenn. II, p. 177, *Sph. hyperopta* Rehm Ascom. n. 348, *Didymosphæria Kunzei* Niessl Hedw. 1866, p. 106. — Peritheciis amphigenis, sparsis, innatis, sphæroideis, ore subpapillato simplici pertusis, atris 0,1–0,2 mill. lat.; ascis subsessilibus, oblongato-subclavatis, 70–100 ≃ 16–22 octosporis; sporidiis 1-2-stichis, subovoideo-oblongatis, apicibus leviter obtusiuscule attenuatis, medio uniseptatis, loculo supero plerumque turgidiore, 2–4guttulatis, ad septum constrictis, hyalinis, 20–24 ≃ 8–10.

Hab. in foliis Caricis acutæ putrescentibus in Fennia, Germania, Austria. — Sec. Rehm. l. c. specimina in Karst. F. fenn. 897 formam microsporam sistunt.

57. **Didymella culmigena** Sacc. Mich. I, 377, Fungi ital. t. 369. — 2182
Peritheciis laxe seriatim gregariis, innato-prominulis, globuloso-lentiformibus, 90–110 μ. diam. poro 20 μ. diam. pertusis, basi sæpe hyphulis ramosis fuligineis cinctis; contextu rufo-fuligineo parenchymatico; ascis cylindraceo-clavatis, 55–65 ≃ 8–10, breviter stipitatis, apice tunica integra rotundatis, paraphysibus crassiusculis (spuriis?) obvallatis, octosporis; sporidiis distichis, fusoideis, curvatis, 15–17 ≃ $3^1/_2$–$5^1/_2$, utrinque acutiusculis, initio varie guttulatis, dein plasmate bipartito spurieque 1-septatis, non constrictis, hyalinis.

Hab. in culmis vaginisque Sorghi, Selva, nec non Triticorum, Vittorio, Conegliano et Sermide, Mantova, Italia, bor. — Tamquam statum immaturum *Leptosphæriæ culmicolæ* diu habui, sed iterum iterumque observata, ut distinguendam propono.

58. **Didymella intercellularis** (B. et C.) Sacc. *Sphæria intercellularis* B. et C. North Amer. Fung. n. 966. — Peritheciis 50 μ. d. in cellulis matricis dilatatis, basi radiatis; ascis brevibus, sursum angustioribus basi incrassatis; sporidiis breviter cymbiformibus, uniseptatis, 12–13 μ. long. 2183

Hab. calamis vel in foliis Typhæ, Massachusetts Americæ borealis (Russell).

59. **Didymella juncina** (B. et Rav.) Sacc. *Sphæria juncina* B. et R. North Amer. Fungi n. 927. — Irregularis, ostiolis punctata; sporidiis oblongis, uniseptatis, medio subconstrictis. 2184

Hab. in calamis Junci in Carolina infer. Amer. bor. — Format plagulas minutas discolores ostiolis punctatas.

60. **Didymella subgemina** (B. et C.) Sacc. *Sph.* (caulicolæ) *subgemina* B. et C. Cuban Fungi n. 861. — Gregaria; peritheciis subglobosis subtectis, ostiolo papillæformi subcompresso libero; ascis clavatis; sporidiis uniserialibus lanceolatis curvulis uniseptatis, articulis subbinucleatis, 12–13 μ. longis. 2185

Hab. in culmis graminum in Cuba. — Peritheciis subinde confluunt.

61. **Didymella Nebraskæ** (B. et C.) Sacc. *Sphæria Nebraskæ* B. et C. North Amer. Fungi n. 969. — Minuta; subhysteriiformis; ascis oblongis leniter inflatis; sporidiis ellipticis, uniseptatis, distichis, 12–16 μ. long. 2186

Hab. in foliis graminum, Nebraska, Amer. bor.

62. **Didymellá phacidiomorpha** (Ces.) Sacc. *Sphæria phacidiomorpha* Ces. Hedw. 1878, p. 45. — Simplex; peritheciis minimis, subcutaneis, sæpe biformibus (ellipticis in pagina superiore foliorum quibus innascitur, orbicularibus in altera pagina), translucentibus, demum epidermide rupta vertice obtuso erumpentibus ostiolo nullo peculiari, poro pertusis; nucleo e sordido albescente; paraphysibus numerosis subtilissimis; ascis plerumque e basi dilatata sacciformi versus apicem attenuatis, rarius subcylindraceis, 30 μ. long., facile diffluentibus; sporidiis 8, distichis vel irregulariter seriatis, 10 μ. long., didymis, segmentis elongatis subovalibus quadantenus irregularibus (linguæformibus, si velis) turbidis, incoloribus. 2187

Hab. in foliis Phormii tenacis in horto botanico Neapoli-

tano Ital. austr. — Adsunt spermogonia: spermatiis cylindraceis 3 μ. longis.

63. **Didymella refracta** (Cooke) Sacc. *Sphæria refracta* Cooke in Grev. V, p. 119, — Peritheciis sparsis, epidermide decolorata tectis, subinde applanatis; ascis cylindraceis; sporidiis monostichis, obtuse biconicis, uniseptatis, loculo utroque 1-2-guttato, hyalinis, 35 ≃ 15. 2188

Hab. in calamis Scirpi, N. Wootton Britanniæ.

64. **Didymella uberina** (Mont.) Sacc. *Sph. uberina* Mont. Syll. Crypt. n. 857 et Guy., mss., n. 571, t. 6, f. 1. — Erumpens, sparsa, verrucariæformis; peritheciis hemisphærico-depressis, basi applanata epidermide irregulariter rupta cinctis, brunneis opacis ostiolatis, ostiolo nitido; ascis maximis octosporis; sporidiis fusiformibus medio septatis hyalinis. 2189

Hab. in petiolis Palmarum, Cayenna (Leprieur).

65. **Didymella Dioscoreæ** (B. et C.) Sacc. *Sph. Dioscoreæ* B. et C. North Amer. Fungi n. 948. — Minutissima; ascis brevibus oligosporis; sporidiis oblongis, uniseptatis, 20 ≃ 6-6,5. 2190

Hab. in caulibus emortuis Dioscoreæ in Carolina inferiore Americæ borealis.

66. **Didymella eumorpha** (B. et C.) Sacc. *Sphæria eumorpha* B. et C. North Amer. Fungi n. 923. — Linearis, epidermide arcte cincta, rima angusta aperta; ascis linearibus; sporidiis oblongis vel subcymbiformibus, uniseptatis, 12-13 μ. longis. 2191

Hab. in culmis Arundinariæ in Carolina infer. Amer. bor.

67. **Didymella combulliens** (B. et C.) Sacc. *Sphæria combulliens* B. et C. North Amer. Fungi n. 936. — Peritheciis sparsis, ostiolo minuto excepto, abditis; sporidiis oblongis uniseptatis. 2192

Hab. in culmis Arundinariæ, in America boreali.

C) *In Acotyledoneis.*

68. **Didymella Hyphenis** (Cooke) Sacc. Mich. II, p. 316, *Sphæria Hyphenis* Cooke Handb. n. 2688. — Subparallela seriata; peritheciis minutis, subglobosis, prominulis, demumque epidermidem perforantibus, nigris, ostiolis minutis; ascis obclavatis, 70-80 ≃ 25, octosporis; sporidiis subdistichis, oblongo-clavulatis, 20-22 ≃ 6, uniseptatis, non v. vix constrictis, hyalinis. 2193

Hab. in stipitibus Pteridis aquilinæ in Britannia (Cooke) et Algeria (Trabut). — Cl. Cooke descripsit sporidia ellipsoidea, sed quæ vidi sic dici non possunt.

69. **Didymella lophospora** Sacc. et Speg. Mich. I, 376, F. it. t. 367. 2194
— Peritheciis dense gregariis, epiphyllis, cuticula velatis, prominulis, globulosis, vix papillatis, 1/8 mill. diam., contextu parenchymatico solidiusculo, fuligineo; ascis crasse clavatis, 65–75 ≃ 12, p. sporif. 50 ≃ 12, deorsum tenuiter stipitatis, paraphysibus filiformibus copiosis obvallatis, octosporis; sporidiis distichis, cylindraceo-fusoideis, 16–17 ≃ 5–6, rectis curvulisve, medio distincte constrictis, 1-septatis, utrinque obtusatis atque appendiculâ obtusâ latiusculâ subpenicillatâ auctis, 4-guttulatis, hyalinis.

Hab. in pagina superiore frondis emortuæ Pteridis aquilinæ prope Conegliano, Ital. bor. — Var. *Acetosellæ* Ellis et Sacc. in Mich. II, p. 374. Ascis 80–90 ≃ 8–10; sporidiis distichis, biconicis, utrinque appendiculatis, constricto-1-septatis, 4-guttulatis, 10–12 ≃ 4 (sine append.) hyalinis. In caule Rumicis putrescente Newfield New Jersey Americæ borealis.

70. **Didymella pteridicola** (B. et C.) Sacc. *Sphæria pteridicola* B. et 2195
C. North Amer. Fungi n. 926. — Linearis, subcuticularis; ascis clavatis; sporidiis oblongis, curvulis, uniseptatis utrinque obtusis, 15 μ. long.

Hab. in stipitibus Pteridis in America borealis. — Series parallelas griseolas cuticula velatas format. — *Didymellæ Hypheni* paraffinis nisi eadem.

GNOMONIA Ces et De Not. Schema Sfer. pag. 57 ex parte (Etym. a *gnomone*, ob formam ostioli). — Perithecia tecta v. erumpentia, submembranacea, glabra, sæpius discreta, ostiolo plus minusve elongato, cylindraceo centrali v. laterali. Asci aparaphysati, rarius paraphysati, 4–8-spori, tunica apice sæpe perforata. Sporidia ellipsoidea v. oblonga v. tereti-fusoidea, uniseptata, hyalina. — Fungi minuti, foliicolæ, rarius caulicolæ. A *Gnomoniella* differt sporidiis didymis, sed hujus generis quædam species, ubi prorsus maturæ observatæ sint, forte *Gnomoniæ* veræ manifestabuntur.

I. *Eugnomonia:* sporidiis ovoideis v. oblongis, 1-septatis.

1. **Gnomonia Epilobii** (Fuck.) Auersw. in Mycol. Eur. Pyr. p. 26, t. 2196
10, fig. 14, Sacc. F. it. t. 436, *Sphæria Epilobii* Fuck. Symb. mycol. p. 113. — Peritheciis sparsis v. subseriatis, initio tectis, sphæroideis, grandiusculis, 1/3–1/2 mill. diam., dein subliberis, umbilicato-collapsis; ostiolo obtuse papillato, perithecium dimidium

subæquante; contextu parenchymatico, firmo; ascis, cylindricis, 115-125 ≃ 10-14, lumine apice exquisite bifoveolato, paraphysibus guttulatis spuriis obvallatis, octosporis; sporidiis ex ovato oblongis utrinque obtusiusculis, constricto-1-septatis, 18-22 ≃ 10-11, 2-v. sæpius pluriguttulatis, hyalinis.

Hab. in caulibus emortuis Epilobii angustifolii in Fennia, Germania et Italia. — An huc *Sphæria fenestrans* Duby?

2. **Gnomonia fenestrans** (Duby) Sacc. *Sph. fenestrans* Duby, Kickx 2197
Fl. crypt. Flandr. I. p. 348. — Peritheciis gregariis v. subsparsis, nigris, e basi applanata conoideis, denique collabascentibus; ostiolo cylindraceo v. conico, papillato, epidermidem perforante, demumque deciduo; ascis cylindraceo-oblongis, octosporis; sporidiis monostichis subglobosis, medio uniseptatis, 2-guttatis.

Hab. in caulibus emortuis Epilobii spicati, Audenarde in Belgio (Westendorp) et in Gallia (Duby).

3. **Gnomonia depressula** Karst. Myc. Fenn. II, p. 121. — Peritheciis 2198
sparsis, sæpe duobus vel pluribus confluentibus, epidermide tectis, sphæroideo-depressis vel basi applanatis, siccis cupulato-collapsis, atris, latit. 0,5 mill.; ostiolis per epidermidem perforatam erumpentibus, cylindraceis vel conoideis, strictis, crassiusculis, nigris, perithecio brevioribus vel longioribus; ascis, sessilibus, fusoideo-bacillaribus, 110 ≃ 15-16, p. sporif., 95-100 μ. long.; distichis, fusoideo-oblongatis, inæquilateralibus vel leviter curvulis, 2-4-guttulatis vel uniseptatis, ad septum leviter constrictis, hyalinis, 24-32 ≃ 7-10.

Hab. in ramis aridis Rubi idæi prope Abo et Mustiala Fenniæ.

4. **Gnomonia tetraspora** Wint. in Hedw. 1872. XI, p. 148, F. it. t. 2199
376. — Peritheciis semiimmersis e basi globosa leviter conicis, ostiolo breve rostellato, parum emergente instructis, 250 μ. d., contextu tenui-membranaceo olivaceo-fusco, apice densiore; ascis cylindraceis, 45-50 ≃ 8-10 breve stipitatis, tetrasporis; sporidis oblongis, submonostichis, constricto-1-septatis, 14-15 ≃ 5-6, 4-guttulatis, hyalinis.

Hab. in caule putrescente Euphorbiæ Cyparissiæ, in Germania, Helvetia, Italia. — Var. *Rubi* Rehm Asc. n. 596; ascis 45-50 ≃ 9, paraphysibus longis septatis obvallatis; sporidiis quaternis distichis ellipticis, sæpius curvulis, utrinque acutiusculis apiculoque hyalino tenui auctis 15 ≃ 3,5. In foliis dejectis Rubi fruticosi, Zürich Helvetiæ (Winter). — « An species distincta? ».

5. **Gnomonia Rhododendri** Auersw. Myc. Eur. Pyr. p. 26, fig. 125. 2200
Peritheciis immersis, sparsis, globosis, nigris, rostro cylindrico, perithecio paulo longiore epidermidem immutatam et neutiquam inflatam perforantibus, 200 μ. latis; ascis oblongis in stipitem brevem attenuatis, 8sporis, 50–55 ≃ 12; sporidiis biserialibus, obovato-cuneatis, utrinque rotundatis, ad tertiam longitudinis partem uniseptatis, ad sepimentum non constrictis, hyalinis, 12 ≃ 6.

Hab. ramulis tenellis et dejectis Rhododendri hirsuti in Germania.

6. **Gnomonia inæqualis** Auersw. in Hedw. 1868, p. 185, et in Myc. 2201
Eur. Pyr. p. 27. — Peritheciis minutis, sparsis, globosis, atri, acute papillatis, papillaque epidermidem perforantibus; ascis saccatis, sessilibus, membrana duplici non visibili, 8-sporis; sporidiis elongato-pyriformibus, inæqualiter bilocularibus, biseriatis, nubilosis, cellula sup. ovali, 10 ≃ 6, inferiore obconica 4–5 ≃ 4.

Hab. in Tyrolia merid. prope Seis, in caulibus aridis Lathyri sylvestris, anno 1867 (Hausmann).

7. **Gnomonia Myricæ** C. et E. New Jers. Fung. in Grev. VI, p. 17, 2202
t. 93, fig. 24. — Peritheciis sparsis, immersis, collo elongato, rostrato; ascis lanceolatis; sporidiis anguste ellipticis, inæqualiter uniseptatis, 10 μ. longis.

Hab. in foliis Myricæ ceriferæ, socia *Septoria* in New Jersey Americæ borealis.

8. **Gnomonia Sesleriæ** Niessl Neue Kernp. p. 85. — Peritheciis mi- 2203
nutissimis punctiformibus gregariis, globosis, tectis, ostiolo obscuro; ascis clavatis, inferne in stipitem tenuem attenuatis, 60–66 ≃ 9–10; stipite 12–15 μ.; sporidiis octonis, distichis, ovoideo-oblongis, utrinque obtusiusculis, rectis vel inæquilateralibus, medio septatis numquam constrictis, hyalinis, 10–12 ≃ 4–5.

Hab. in utraque pag. foliorum emortuorum Sesleriæ cæruleæ pr. Brünn et Polau Moraviæ. — Ob ostiolum obsoletum vix *Gnomonia*, cujus tamen habet ascos.

II. *Closterognomis:* sporidiis tereti-fusoideis, 1-septatis.

9. **Gnomonia setacea** (Pers.) Ces. et De Not. Schem. Sfer. Auersw. 2204
Myc. Eur. Pyr. p. 27, fig. 145. Sacc. Myc. Spec. 100, t. X, f. 121. *Sphæria setacea* Pers. Syn. p. 62. — Peritheciis sparsis vel laxe gregariis, hypophyllis, parenchymati innatis, sphæroideis, atris, rostro elongato, filiformi, apicem versus leviter attenuato, perithecio duplo vel pluries longiori, sæpe flexuoso, concolori, epidermi-

dem perforante, latit. 150-300 μ.; ascis fusoideo-elongatis vel fusoideo-oblongatis, breviter acuteque pedicellatis, 30-40 ≃ 6-9, 4-8-sporis; sporidiis conglobatis, bacillaribus, medio uniseptatis, 4-guttulatis, rectis vel leviter curvulis, hyalinis, 14-15 ≃ 1,5-2 utrinque setula brevi auctis. — Sec. Fuck. spermogonium refert *Discosiam clypeatam* De Not.

Hab. in foliis emortuis Quercus, Castaneæ, rarius Aceris Cratægi, Betulæ, Alni, Coryli in tota Europa.

10. **Gnomonia ischnostyla** (Desm.) Fuck. Symb. mycol. *Sphæria* (foliicola) *ischnostyla* Desmaz. 17 Not. 1849, p. 31. — Hypophylla, sparsa; peritheciis minutis, tectis, nigris, globosis, dein depressis; ostiolis nigris, elongatis, tenuissimis; ascis minutis apice 2-foveolalatis exacte fusiformibus, 50 ≃ 7-8; sporidiis fusoideo-linearibus; distichis, 15 ≃ 1, 4-guttulatis, hyalinis (non omnino muticis visis). 2205

Hab. in foliis siccis Carpini, Aceris Pseudoplatani in Gallia et Germania. — Forte varietas *Gn. setaceæ*.

11. **Gnomonia inclinata** (Desm.) Auersw. Myc. Eur. Pyr. p. 27, fig. 143. Sacc. Myc. Ven. t. X, f. 1. *Sphæria inclinata* Desm. XIX. Not. p. 20. — Peritheciis hypophyllis, parenchymati innatis, sparsis, nigris, oblongis, decumbentibus, ostiolo rostellato inclinato, initio perithecium æquante, denique duplo fere longiore, filiformi, epidermidem perforantibus, 220-230 μ. diam.; ascis clavato-oblongis, in stipitem brevem attenuatis, 6-sporis, 50 ≃ 10; sporidiis 2-3-stichis, cylindraceis, rectis, utrinque obtusiusculis sed in setulam longissimam abeuntibus, medio tandem septatis, haud constrictis, 4-guttulatis, 17 ≃ 3 (absque appendicibus). 2206

Hab. In foliis emortuis Aceris platanoidis, A. campestris, A. Pseudoplatani (rarius et Æsculi) in Gallia, Germania et Italia.

12. **Gnomonia setiformis** (Pers.) Sacc. *Sphæria* (epiphyllæ) *setiformis* Pers. Ann. sc. Nat. V. 1846, p. 262. — Peritheciis amphigenis solitariis v. hinc inde 2-3-cæpitoso-aggregatis, basi latiuscula folio adnatis, ostiolo setiformi; ascis clavatis, octosporis; sporidiis elongatis, septatis. 2207

Hab. in foliis Codiæi variegati in Java (Zollinger). — *Sphæriæ Cassiæ* affinis.

13. **Gnomonia Veneta** Speg. Mich. I, p. 457, F. it. t. 631. — Peritheciis globulosis, laxe gregariis, primo parenchymati innatis, tectis, dein emergentibus, siccis cupulato-collapsis, $^2/_{10}$-$^3/_{10}$ mill. d. atris, rostro elongato, recto vel curvulo, crassiusculo, perithecium 2208

æquante vel paululum excedente, concolore instructis; ascis fusoideo-clavatis, apice rotundatis, crassiuscule tunicatis, 45-50 ≃ 7-8, octosporis, aparaphysatis; sporidiis elongato-fusoideis, quandoque sub-clavulatis, utrinque obtusiusculis, excentrice 1-septatis, h. e. loculo inferiore bis longiore quam superiore, hyalinis, minute pluriguttulatis, utrinque appendicibus rostriformibus, acutiusculis auctis, 15 ≃ $3^1/_2$-4.

Hab. ad folia dejecta Ostryæ carpinifoliæ, Colfosco in Italia boreali.

14. **Gnomonia amœna** Auersw. Myc. Eur. Pyr. p. 24, fig. 135 (nec Fuck. quæ *Gnomoniella*. Cfr. Syll. nostra n. 1568). — Peritheciis immersis, sparsis, depresso-globosis, vel globosis, rostro pyrenio duplo longiore filiformi discum minutum, roseo-album perforantibus, 380 μ. latis, 280 μ. altis; ascis clavato-oblongis, in stipitem brevem attenuatis, 8-sporis, 50-60 ≃ 8-10; sporidiis biserialibus, elongato-oblongis, utrinque obtusatis, medio uniseptatis, ad sepimentum leviter constrictis, loculo, utroque nucleolis binis ornato, subhyalinis, 12-15 ≃ 3. 2209

Hab. in petiolis foliorum Coryli et Carpini in Germania. — *Gn. amœna* Fuck. differt sporidiis multo brevioribus et simplicibus.

15. **Gnomonia Ostryæ** De Not. Sfer. it. p. 42, t. 49. Auersw. Myc. Eur. Pyr. p. 24, fig. 136. — Peritheciis hypophyllis, epidermidi primo subinnatis, sparsis, depresso-globulosis, siccis cupuliformi-collapsis, membranaceis, atris, rostro tenui, perithecium paululo superante verticali vel excentrico ornatis, 250-300 μ. latis; ascis clavatis, in stipitem brevissimum attenuatis, 8-sporis, 48 ≃ 8; sporidiis biserialibus, obovato-fusiformibus, rectis vel curvulis, utrinque rotundatis, ad tertiam sporidiorum partem superiorem uniseptatis, ad sepimentum non constrictis, subyalinis, nucleolis, 3-5 ornatis, 14 ≃ 4. 2210

Hab. in pagina inferiore foliorum Ostryæ carpinifoliæ in Italia boreali.

16. **Gnomonia Arnstadtiensis** Auersw. Myc. Eur. Pyr. p. 22, fig. 119. — Peritheciis parenchymati folii immersis, epidermide immutata tectis, sparsis, nigris, depresso-globulosis, latere in rostrum brevissime conicum attenuatis, ostiolo diu, ad sporidiorum maturitatem usque, epidermide tecto, et non nisi sero eam puncti nigri instar lateraliter perforante, 150 μ. latis; ascis clavato-oblongis, in stipitem brevem tenuem attenuatis, 8-sporis, 75-90 ≃ 10; sporidiis 2211

biseriatis, elongato-oblongis vel subfusiformibus, utrinque acutiusculis, medio uniseptatis, ad sepimentum vix constrictis, hyalinis, 27 ≃ 5.

Hab. in pagina superiore foliorum emortuorum Carpini Betuli in Germania.

17. **Gnomonia suspecta** (Fuck.) Sacc. *Plagiostoma suspecta* Fuck. Symb. myc. p. 119, t. VI, fig. 32. *Sphæria suspecta* Auersw.? — Peritheciis majusculis, tectis, planis, atris; ostiolo in perithecii latere nato, brevi, crasso-cylindraceo, prominulo; ascis oblongo-cylindraceis, 8sporis, 80 ≃ 8; sporidiis distichis, oblongis, utrinque parum attenuatis, ceterum obtusis, didymis, hyalinis, 18 ≃ 4. 2212

Hab. in pagina inferiore, plerumque secus nervos, foliorum Quercus pr. Œstrich Rhenogoviæ.

18. **Gnomonia lirelliformis** Pass. Micr. ital. diagn. n. 5, in Rev. myc. — Peritheciis epiphyllis, gregariis, epidermide nigrefacta tectis, ostiolo brevissimo, vix per epidermidem tandem fissam perspicuo; ascis clavatis sessilibus, 8-sporis, 42-50 ≃ 8-10; sporidiis fusiformibus gracilibus nucleatis, hyalinis, 20 ≃ 2,5. 2213

Hab. ad folia viva Quercus Roboris autumno nondum ascigera et per hyemem in foliis stratis maturans, Collecchio, Parma, Italia bor. — Asci maturi adeo elongantur ut tandem anguste lineares fiant. — « An *Hypospila?* ».

19. **Gnomonia erythrostoma** (Pers.) Auersw. in Mycol. Europ. Pyren. p. 26, fig. 127, Sacc. F. it. t. 375. — Peritheciis innato-erumpentibus, utrinque prominulis, brevi-rostellatis, contextu rufescente, parenchymatico, ostioli prosenchymatico; ascis cylindraceis, 100-110 ≃ 12-15, breviter stipitatis, apice lumine bifoveolato, obtusatis, aparaphysatis, octosporis; sporidiis distichis, oblongo-cylindraceis, 18 ≃ 5-6, utrinque rotundatis, infrà medium spurie 1-septatis, non constrictis, 4-guttulatis, hyalinis, appendiculis mox deciduis curvulis auctis. — Spermogonium *Septoriæ* speciem refert (Cfr. Fuck. Symb. myc. 123 et App.). 2214

Hab. in foliis Pruni Avium et P. Cerasi adhuc pendulis immaturis, in putrescentibus maturescens, in Germania, Helvetia, Italia.

20. **Gnomonia Linnææ** Auersw. Myc. Eur. Pyr. pag. 24, fig. 128 et 148 *a*, *Sphæria setacea* Fr. p. p. — Peritheciis epiphyllis, parenchymati immersis, sparsis, globulosis, atris, rostro elongato, cylindraceo, stricto, nitidulo, pyrenio sesqui- vel duplo longiore epidermidem immutatam perforantibus, 300 μ. latis; ascis oblongis, bre- 2215

viter et acute stipitatis, 8-sporis, 50-55 ≃ 12; sporidiis 3-4-serialiter stipatis, oblongis, utrinque obtusatis, leviter curvulis, medio denique uniseptatis, ad sepimentum non constrictis, subhyalinis, loculo utroque nucleolis binis maximis ornato, 24 ≃ 5.

Hab. in foliis siccis Linnææ borealis in Suecia et Germania.

21. **Gnomonia Fleischhakii** Auersw. Myc. Eur. Pyr. p. 26, fig. 134. 2216
— Peritheciis immersis, sparsis aut paucis lineatim congestis, depresso-globosis, nigris, rostro conico rigido erumpente coronatis, subcoriaceo-membranaceis, 300-350 μ. latis; ascis cylindraceis, breviter stipitatis, 8-sporis, 52 ≃ 10; sporidiis biserialibus, oblongo-fusiformibus, utrinque obtusatis, medio uniseptatis, ad sepimentum vix constrictis, subhyalinis, 14 ≃ 3.

Hab. in ramis siccis Genistæ tinctoriæ in Germania.

28. **Gnomonia Alni** Plow. Calif. Sphær. in Grev. VII, p. 74, t. 120, 2217
fig. 4. — Peritheciis minutis, cæspituloso-aggregatis, foliorum parenchymati innatis, ostiolo elongato, sursum leniter attenuato; ascis ovato-elongatis, 35-40 ≃ 10-15, octosporis; sporidiis 1-septatis, curvulis, 22-25 ≃ 3-4, nucleatis, hyalinis.

Hab. in foliis adhuc viventibus Alni in California. — Peritheciorum basis in aversa foliorum pagina quoque prominula.

29. **Gnomonia alniella** Karst. Myc. Fenn. II. p. 119. — Peritheciis 2218
sparsis, parenchymati innatis, sphæroideis, siccis basi capulæ instar collapsis, atris, rostro stricto, cylindraceo, apicem versus leviter attenuato, rigido, perithecium fere æquante, concolore, epidermidem immutatam et utrinque inflatam ad folii paginam inferiorem, rarissime superiorem perforantibus, latit. 200-250 mill.; ascis fusoideo-elongatis, in pedicellum tenuissimum, brevissimum attenuatis, vulgo curvulis, 30-40 ≃ 8-10 octosporis; sporidiis distichis, ovoideo-oblongatis, infra tenuiter uniseptatis, ad septum non constrictis, hyalinis, rectis, 8-10 ≃ 2,5-4.

Hab. in foliis Alni putrescentibus circa Mustiala Fenniæ. — Rationibus variis a congeneribus ceteris admodum recedit. Rostrum perithecii 150-180 μ. longum, basi 60-75 μ. crassum.

30. **Gnomonia campylostyla** Auersw. Syn. Pyr. eur. p. 25, t. 9, f. 130, 2219
et t. 11, f. 148 b. — Peritheciis hypophyllis sparsis, parenchymati innatis, depresso-subsphæroideis vel oblongatis, rostro laterali, flexuoso, longo vel longissimo, nitido epidermidem perforantibus, latit. 0,3-0,5 mill.; ascis oblongatis, breviter pedicellatis, 40-50 ≃ 10-12, octosporis; sporidiis conglobatis, elongatis vel suboblongatis,

4-guttulatis vel medio uniseptatis, ad septum haud vel levissime constrictis, rectis, hyalinis, 15–22 ≃ 3–5. — Spermogonia scutiformia, orbicularia, sparsa, interdum confluentia, epiphylla, demum applanata plicataque, atra, nitida, latit. 0,3 mill.; spermatis cylindraceis, rectis, simplicibus, hyalinis, 3–5 ≃ 1.

Hab. in foliis Betulæ albæ et Bet. nanæ siccis in Tyrolia et per totam Fenniam et Lapponiam. — Spermogonia, speciem Leptothyrii sistentia, vere haud raro obveniunt in foliis Betulæ nunc in consortio peritheciorum, nunc ab iis segregata.

31. **Gnomonia leptostyla** (Fr.) Ces. et De Not. Schema p. 232 Auersw. Myc. Eur. Pyr. p. 25, fig. 29. *Sph. leptostyla* Fr. S. M. II, p. 517. — 2220
Peritheciis conico-prominulis rufescentibus, ostiolo gracili brevi stricto nigro; ascis subclavatis, 45–65 ≃ 10–12 aparaphysatis, octosporis; sporidiis distichis v. oblique monostichis fusoideis, rectis curvulisve, 1-septatis, 18–22 ≃ 4, sæpius 4-guttulatis, hyalinis. — *Marsonia Juglandis* (Lib.) sistit st. conidicum.

Hab. in foliis putrescentibus Juglandis regiæ hypophylla, in Belgio, Gallia, Germania, Italia.

32. **Gnomonia errabunda** (R. et D.) Auersw. M. Eur. Pyr. p. 25, fig. 120, *Sphæria* (foliicola) *errabunda* Rob. et Desm. 16 Not. 355, 1849. — Amphigena, minutissima, sparsa; peritheciis fusco-nigris, epidermide tectis, $^1/_7$ mill. diam. humectis globosis, siccis depressis; ostiolis exsertis; ascis clavato-ventricosis, 40–50 ≃ 10–12; sporidiis elliptico-oblongis, prope basim 1-septatis, rectis v. inæquilateralibus, 14–16 ≃ 3,5, guttulatis, hyalinis. 2221

Hab. in foliis exsiccatis Fagi, Carpini et Quercus in Gallia et Germania.

33. **Gnomonia petiolicola** (Fuck.) Karst. Myc. Fenn. II. p. 122, *Plagiostoma petiolicola* Fuck. Symb. myc. p. 119, *Gnomonia devexa* Auersw. p. p. Rehm Ascom. n. 139. — Peritheciis sparsis, interdum nonnullis congestis, epidermide subimmutata tectis eique detractæ subtus adhærentibus, sphæroideis, siccis subdepresso-sphæroideis, basi subinde cupulato-collapsis, rostro brevissimo, conoideo, sæpe obliquo, epidermidem breviter perforante instructis, atris, latit. 150–200 μ.; ascis breviter pedicellatis, fusoideo-elongatis vel fusoideo-bacillaribus, 44–46 ≃ 7–9, octosporis; sporidiis distichis, fusoideo-elongatis, 1- (–3?)-septatis, guttulatis, rectis vel leviter curvulis, chlorino-hyalinis, 9–12 ≃ 2–3. 2222

Hab. ad petiolos putres Tiliæ parvifloræ in Germania occ. et Fennia australi.

34. **Gnomonia Dryadis** Auersw. Myc. Eur. Pyr. pag. 26, fig. 131. — 2223
Peritheciis primo immersis, dein semiimmersis, sparsis vel paucis congestis, imo connatis, rostro nitidulo, perithecium fere æquante, rigido superatis, globosis, 300 μ. latis; ascis clavatis, brevissime stipitatis, 8sporis, 100 ≃ 14; sporidiis biserialibus, fusiformi-oblongis, rectis aut subcurvulis, utrinque mucrone minuto ornatis, medio uniseptatis, ad sepimentum leviter constrictis, hyalinis, loculo quoque binucleolatis, 27 ≃ 5-6.

Hab. in ramulis emortuis Dryadis octopetalæ in Germania.

35. **Gnomonia Cerastis** (Riess) Auersw. Myc. Eur. Pyr. p. 27, fig. 2224
144. *Sphæria Cerastis* Riess Hedw. I, n. 5, t. III, fig. 2, m-o, *Sphæria petioli* Fuck. Enum. Fung. Nass. pag. 68 (nec *Sphæria ischnostyla* Desm.). — Peritheciis parenchymati immersis, sparsis, globosis, nigris, rostro filiformi perithecium subæquante epidermidem perforantibus, 350 μ. altis; ascis oblongo-clavatis, in stipitem attenuatis, 6sporis 51 ≃ 8-10, (parte sporifera 30 μ. longa); sporidiis 3-serialiter stipatis, cylindraceo-oblongis, utrinque rotundatis 4-guttulatis, medio uniseptatis, ad sepimentum leviter constrictis subhyalinis, 17 ≃ 4.

Hab. in petiolis putrescentibus Aceris Pseudoplatani et A. Negundinis in Germania et Britannia.

36. **Gnomonia Graphis** Fuck. Symb. myc. p. 122, Rehm. Asc. n. 393. 2225
— Peritheciis sparsis, globosis, olivaceis, vertice ostiolo longissimo, tereti, atro terminatis; ascis elliptico-oblongis, tenuissime oblique stipitatis, 40 ≃ 6, p. sporif. 28 μ. long., 8sporis; sporidiis distichis cylindraceis, curvatis, 1- (-3?) -septatis, muticis, hyalinis, 16-18 ≃ 1-1,5.

Hab. in pag. inferiore foliorum putrescentium Rubi fruticosi in Germania et Britannia.

37. **Gnomonia pleurostyla** Auersw. Myc. Eur. Pyr. p. 28, fig. 146. 2226
— Peritheciis hypophyllis, parenchymati innatis, sparsis, nigris, depresso-globulosis, rostro laterali filiformi epidermidem perforantibus, 200-230 ≃ 180; ascis elongato-clavatis, in stipitem breviusculum et acutum attenuatis, 6-sporis, 55-65 ≃ 7-8; sporidiis parallele stipatis, filiformi-lanciformibus, vel cultriformibus, subhyalinis, 50-55 ≃ 2.

Hab. in foliis siccis Salicis viminalis, in Germania, raro. — Ex icone Auersw. l. c. sporidia videntur fusoidea breviuscula

basi vero longissime, apice breve setigera. Species rectius prope n. 1591 ponenda.

III. *Dubiæ.*

38. **Gnomonia acicularis** (Wallr.) Sacc. *Sphæria acicularis* Wallr. Comp. Fl. crypt. n. 3878. *Sph. subtilis* Mart. Erl. pag. 488 (nec Grev.). *Sph. setacea* β *affinis* Fr. S. M. II, p. 518. — Perithe- ciis minimis convexis syuphlœodeis, collum tenuissimum setaceum illis duplo majus exserentibus. 2227

Hab. ad folia sicca Trifolii repentis rarius in Germania. — *Gnemoniæ setaceæ* paraffinis dicitur.

39. **Gnomonia? curvirostra** (Sow.) Sacc. *Sphæria curvirostra* Sow. t. 373, f. 5, Fr. S. M. II, p. 517. — Gregaria; peritheciis tectis ovatis nigris, ostiolo erumpente æquali glabro brevioribus. 2228

Hab. ad caules Umbelliferarum in Britannia et Suecia. — Perithecia ovata in ostiolum longius obliquum attenuata. Ostiolo diffracto, facile pro specie diversa sumi potest. An *Diaporthe?*

40. **Gnomonia? Grossulariæ** (Fr.) Sacc. *Sph. Grossulariæ* Fr. S. M. II, 521, Wallr. Comp. n. 3875. — Sparsa; peritheciis tectis glo- bosis utrinque prominentibus, atris, intus albis, ostiolo minuto nigro. 2229

Hab. in foliis putridis Ribis Grossulariæ in Germania et Suecia. — Perithecia fere *Gn. setaceæ*, demum collabentia, sed ostiolum in pagina inferiore non prominet et gelatinam subcirrho- sam erumpentem semel vidi; intus primo albido-cellulosa, puncto centrali nigro, dein evacuata (Fr. l. c.).

41. **Gnomonia ulmea** (Sacc.) Thüm in Flora 1878, p. 178. — *Sphæ- ria ulmea* Fr. Syst. mycol. II, p. 436. *Xyloma ulmeum* Schweinz. Syn. fung. Carol. p. 55, n. 288. *Mycoth. univ.* n. 1155. — Tecta; peritheciis subcircinatis, distichis, superne tuberculis corrugatis ni- tidis prominulis, ostiolis solitariis conicis punctiformibus. 2230

Hab. in foliis emortuis Ulmi americanæ in Carolina austr., bor. et Canadâ. — Sphæriæ species optima et pulcherrima. In pa- gina superiore folii observantur maculæ indeterminatæ, lacteæ, qui- bus innata insident tubercula distincta subconcentrica corrugata nitida, quæ, si epidermis tollatur, sunt bases peritheciorum evi- dentissimorum in folii parenchymate fere libere nidulantium, glo- bosorum. Ostiola in pagina inferiori prominent minuta, recta.

EPICYMATIA Fuck. Symb. myc. p. 118. (Etym. *epi*, supra et *cyma- tium*, apothecium). — Perithecia plerumque lichenicola, hemisphæ-

rica, basi adnata subsuperficialia, coriacea v. subcarbonacea, ostiolo minutissimo pertusa. Asci oblongi octospori typice aparaphysati v. pseudoparaphysati. Sporidia oblonga, 1-(3?-)septata subhyalina. — *Pharcidia* Körb Par. Lichen. p. 469 convenit, sed genus revera fungus potius quam lichen videtur. Plures species forte inter se nimis affines, ideoque conjungendæ. Cum *Sphærella*, *Lizonia* et *Didymella* pluribus notis convenit et nisi potissimum vita lichenicola vix dignoscitur.

1. **Epicymatia vulgaris** Fuck. Symb. myc. p. 118, *Sphæria epicymatia* Wallr. Crypt. n. 3741, *Sphæria apotheciorum* Mass. Auton. Crost. p. 26, fig. 41, *Pharcidia congesta* Körb. Par. p. 470, Rehm Ascom. n. 33, *Sphæria propinquella* Nyl. Mus. Fenn. p. 112, *Epicymatia commutata* Niessl Not. Pyr. p. 8, t. IV, f. 25. — Peritheciis superficialibus, gregariis, sæpe confertis, minutissimis, globoso-conoideis, atris, coriaceis, ostiolo vix visibili; ascis rosulato-fasciculatis, oblongo-ovatis vel oblongo-lanceolatis, tunica apice incrassata sessilibus, 30–40 ≃ 13–14; sporidiis 8 farctis, cylindraceis vel parum cuneatis, utrinque obtuse rotundatis, rectis curvatisve 1–3-septatis non constrictis partim muco obductis subhyalinis, 12–13 ≃ 3–4; paraphysibus non visis. — Sec. Fuck. l. c. *Gymnosporium Physciæ* Kalchbr. sisteret st. conidicum. 2231

   Hab. in apotheciis Lecanoræ subfuscæ el Placodii albescentis in Germania, Gallia, Italia, Britannia, Fennia et Belgio. — Apothecia Lecanoræ ob peritheciorum copiam tandem omnino nigrescunt. Si sporidia typice quadrilocularia sint, species ab hoc genere eliminanda erit.

2. **Epicymatia Schœreri** (Mass.) Sacc., *Sphæria Schœreri* Mass. Sulla Lecid. Hookeri, p. 8, fig. 3, A. B. — Peritheciis globoso-sphæroideis, punctiformibus, atris, nitidis, integris; ascis subclavatis, octosporis, paraphysibus laxis evanidis mucilaginosis obvallatis; sporidiis 2-3-stichis elliptico-subincurvis, hyalinis, bilocularibus, 12–13 ≃ 2,5. 2232

   Hab. in thallo Lecideæ Hookeri Schœr. in Helvetia et Italia.

3. **Epicymatia Mammillula** (Anzi) Sacc., *Leptosphæria Mammillula* Anzi An. lichen. p. 26. — Peritheciis in cubiculi tuberculis minutissimis mammiformibus sæpe carneo-coloratis inclusis, solo ostiolo purpureo papillatim prominulo; ascis cylindraceo-fusiformibus, substantia subgelatinosa pallida obvallatis, octosporis; sporidiis incumbenti-1-seriatis, navicularibus, 1-septatis, 13–15 ≃ 4–7, pellucidis. 2233

Hab. in thalli Peltigeræ caninæ pagina superiore in sylvis Bormiensibus, Valfurva Italiæ borealis.

4. **Epicymatia thallina** (Cooke) Sacc. *Sphærella thallina* Cooke Grev. VIII, p. 10. — Peritheciis supra thallum sparsis, minutis, semiimmersis, nigro-fuscis, tenuiter papillatis; sporidiis distichis, ellipsoideis, uniseptatis, leniter constrictis, 15 ≃ 5, hyalinis. 2234

Hab. in thallo Physciæ obscuræ, Eastbourne Britanniæ (C. J. Müller).

5. **Epicymatia araneosa** (Rehm) Sacc., *Sphærella araneosa* Rehm Ascom. n. 133 et Diagn. n. 133. — Hyphis fuscis, septatis, c. 8 μ. crassis, araneæ modo thallum et discum apotheciorum nigro-maculantibus: peritheciis sparsis vel gregariis, minimis, oculo nudo vix perspicuis, atris, parenchymatice fusco-contextis, globosis; ascis pyriformibus, sessilibus, apice incrassatis, 36-40 ≃ 15, in singulis peritheciis quaternis, vario stadio inæqualiter evolutis aparaphysatis, octosporis, jodo immutatis; sporidiis obtuse ellipsoideis, bicellularibus, utraque cellula nucleo 1 magno vel 2 minoribus prædita, 12-14 ≃ 6-7, primitus hyalinis, dein fuscidulis, distichis. 2235

Hab. supra thallum et apothecia Ochrolechiæ pallescentis var. upsaliensis (L.) etc. in alpibus editioribus Tyrolensibus (Dr. Arnold). — Cfr. Arnold Fragm. 16, t. II. fig. 22-23.

6. **Epicymatia borealis** Sacc. ex Fr. Hedw. 1881, p. 59 (*Sphæria* n. 9). — Peritheciis parvis, ad 0,2 mill. latis, adnatis vel semiimmersis, primo subglobosis, dein varie corrugatis et apice fere descissis, atris, paraphysibus (genuinis?) gracilibus, ramosis anastomosantibus; ascis cylindrico-clavatis; sporidiis 4-6, monostichis, ellipsoideis, medio constrictis, utrinque obtusis, diblastis, 15-17 ≃ 7-9. 2236

Hab. in thallo lichenoso sterili in Groënlandia.

7. **Epicymatia frigida** Sacc. ex Fr. Hedw. 1881, p. 60 (*Sphæria* n. 10). — Peritheciis minutissimis, tantum lente valde augente detegendis, hyphis nigricantibus toruloideis impositis atris; paraphysibus nullis distinctis; ascis ventricosis; sporidiis octonis ovoideis, vel oblongo-ovoideis, utrinque obtusis diblastis, hyalinis, 15-18 ≃ 5-7. 2237

Hab. in lichene Thamnolia vermiculari in Groënlandia.

8. **Epicymatia thallophila** (Cooke) Sacc., *Sphæria thallophila* Cooke Handb. n. 2614. — Peritheciis sparsis vel gregariis, thallo semiimmersis, subglobosis, carbonaceis, ostiolo papillato pertuso; ascis cylindricis; sporidiis monostichis, ellipsoideis, uniseptatis, non constrictis, hyalinis, tandem chlorinis, 10 μ. longis. 2238

Hab. in thallo Lecanoræ subfuscæ, Glenshee Britanniæ.

(L. Lindsay). — Sec. Cooke l. c. non improbabile videtur speciem esse xylogenam, superficialem, lichenis thallum superpositum perforantem.

9. **Epicymatia Hageniæ** (Rehm) Sacc. *Pharcidia Hageniæ* Rehm et Wint. Flora 1872, p. 523, Arnold, Fragm. 16, tab. II, fig. 19. — Peritheciis gregariis vel subconfluentibus, epidermide lichenis innatis, fusco-atris globosis, poro simplici pertusis, 36–100 μ. diam.; ascis obovatis utrinque paululo attenuatis, sessilibus, aparaphysatis octosporis, 30–40 ≃ 13–15; sporidiis in parte asci inferiore fere conglobatis, elongato-oblongis, utrinque rotundatis, uniseptatis, ad septum non constrictis, loculo superiore subcrassiore, 12–15 ≃ 4–5, bi-quadriguttatis, hyalinis. 2239

Hab. in pag. sup. thalli Hageniæ ciliaris ad Prunum in Franconia Germaniæ.

10. **Epicymatia lichenicola** Mass. sub *Dothidea*, Auton. lichen. crost. pag. 45, fig. 81. — Peritheciis subrotundis, innatis cum stromate cinereo-nigrescente, rugoso-scabrido concrescentibus; ostiolis minutissimis vix perspicuis; nucleo pallido subgelatinoso; ascis oblongis utrinque attenuatis, 8sporis, paraphysibus obsoletis obvallatis, sporidiis bilocularibus, diaphanis, subgranulosis, elliptico-oblongis, subincurvis, utrinque obtusis, 18–24 ≃ 6–6,5. 2240

Hab. in lamina proligera Pachyosporæ viridescentis Mass. (quæ var. Aspiciliæ calcarcæ) in rupibus trachiticis collium Euganei prope Padova Italiæ borealis.

11. **Epicymatia? Psoromatis** (Mass.) Sacc. *Sphæria Psoromatis* Mass. in Flora 1856, p. 241, t, III, f. 13. — Peritheciis exiguis, thallo immersis, globulosis; ascis .....; sporidiis breve fusoideis, vel clavulatis, curvulis, 12–18 ≃ 6, uniseptatis, leviter constrictis, subhyalinis, utrinque obtusiusculis. 2241

Hab. ad thallum Psoromatis crassi hinc inde in agro Veronensi Italiæ borealis.

12. **Epicymatia Massariæ** Pass. Diagn. fungh. nuov. n. 8 in Nuov. Giorn. Bot. ital. VII (1875). — Peritheciis in tuberculum subglobosum, *Massariæ* centro insidens, minute ex ostiolis extus papillatum, concretis, parvis, atris, vel etiam circa matricem et in ejus cavitate ampliata, sparsis; ascis oblongo-clavatis, 8sporis; sporidiis 1-2-seriatis, elliptico-oblongis, interdum subcurvatis, medio septatis, hyalinis, loculis guttulatis, endoplasmate granuloso. 2242

Hab. in peritheciis Massariæ Curreyi ad ramos Tiliæ, Parma Ital. bor. — *Massariæ* perithecia parasito laborantia ut

plurimum incrassantur, et ostiolo crasso, subgloboso terminata videntur.

13. **Epicymatia verrucariæformis** Fuck. Symb. myc. p. 118. — Peri- 2243
thecіis media magnitudine, sparsis, subsuperficialibus, plano-hemisphæricis, demum umbilicatis, subtilissime papillatis perforatisque, atris, basi stromate spurio, angusto, tenuissimo cinctis; ascis oblongis, 8sporis, 64 ≃ 16; sporidiis subdistichis, oblongis, utrinque obtusis, inæqualiter didymis, loculis biguttulatis, hyalinis, 16 ≃ 5.

Hab. supra epidermidem (thallo lichenoso invasam?) ramulorum Cratægi Oxyacanthæ in Jura Helvetiæ (Morthier).

LIZONIA Ces. et De Not. Schem. Sfer. p. 41 (Etym. prob. a *Dominico Lisa* botanophilo taurinensi). — Perithecia subaggregata, ovoidea, glabra, ostiolo minutissimo, coriaceo-membranacea, erumpenti-superficialia. Asci clavati. Sporidia disticha, oblonga sæpius inæquilateralia, uniseptata, e hyalino fuscidula majuscula. Paraphyses nullæ. — Fungilli foliicolæ; a *Sphærella* recedentes ob perithecia subcoriacea congesto-erumpentia et sporidia sæpius majuscula; ab *Epicymatia* quia non lichenicolæ etc.

1. **Lizonia emperigonia** (Auersw.) De Not. Sfer. ital. p. 72, t. LXXVII, 2244
Sphæria emperigonia Auersw. in Rabh. Herb. myc. I, p. 850. — Paritheciis in pagina alarum superiore foliorum periandricorum in series transversas ordinatis, filis a basi prodeuntibus fuligineis in folio repentibus adfixis, ovoideis, tuncque apice obtusiusculis vel sphæroideis tuncque papilla conoidea præditis, osculo nisi minutissimo, atris, opacis, 250–300 μ. diam.; ascis numerosis, rectis, clavatis octosporis 135 ≃ 18; sporidiis distichis, oblongatis, sæpius inæquilateralibus, medio uniseptatis, ad septum leviter vel vix constrictis, loculo altero sæpe paullo majori, flavescentibus vel subfuscescentibus, pellucidis, 30–46 ≃ 10–15.

Hab. in foliis periandricis Polytrichi communis emortuis in Germania, Italia, Fennia.

2. **Lizonia distincta** Karst. Myc. Fenn. II, p. 186, *Sphærella dis-* 2245
tincta Karst. Fungi Spetsb. p. 107. — Paritheciis sparsis, parenchymati folii innatis, dein utrinque prominulis, sphæroideis, interdum vertice subcupulato-collapsis, astomis, atris, 0,3 mill. latit.; ascis brevissime pedicellatis, oblongatis, 120–180 ≃ 32–48, octosporis; sporidiis di- vel tristichis, ovoideo- vel subfusoideo-oblongatis, ut plurimum inæquilateralibus, plus minus extra medium uniseptatis, hyalinis vel subluteolo-hyalinis, 40–50 ≃ 13–20.

Hab. in foliis graminum vetustis in Fennia et Spitzbergia.

3. **Lizonia fragilis** (Berk.) Sacc. *Sphæria* (cæspitosæ) *fragilis* Berk. 224
Fl. N. Zel. II, p. 205, t. CVI, fig. 7. — Peritheciis congestis, fragilissimis, nigro-fuscis, obtusis, opacis, minimis; sporidiis hyalinis breviter subfusiformibus, uniseptatis vix constrictis, 16–25 μ. long.

Hab. in pag. inf. foliorum Eurybiæ furfuraceæ in Nova Zelandia (Colenso).

4. **Lizonia pullulans** (Berk.) Sacc., *Sphæria* (cæspitosæ) *pullulans* 2247
Berk. Fl. N. Zel. II, 205. — Peritheciis aggregatis, subglobosis, astomis, vel ore leviter prominulo opacis; ascis subcylindricis; sporidiis oblongis utrinque subattenuatis, curvulis, uniseptatis, 16–17 μ. long., leniter constrictis.

Hab. in foliis Leucopogonis Fraseri, præcipue in pag. inf., Mission Station, Nova Zelandia (Colenso).

MELANOPSAMMA Niessl Notiz. über Pyren. pag. 40 (nomen), Sacc. Mich. I, p. 347. (Etym. *melas*, niger et *psamme*, arena). — Perithecia superficialia v. basi adnata v. semi-immersa, globosa, v. conico-depressa, papillata, carbonacea, glabra v. initio pilis conidiophoris inspersa. Asci paraphysati 4-8-spori. Sporidia ellipsoidea v. subfusoidea, uniseptata, hyalina. — Respondet *Amphisphæriæ* et pariter variat formis peritheciis globosis stricte superficialibus et peritheciis conoideis basi infossis; quæ formæ in posterum forte generice distinguendæ erunt. *Amphisphæriæ* species hyalodidymas huc ad interim duxi.

1. **Melanopsamma pomiformis** (Pers.) Sacc. Mich. *Sphæria pomiformis* 2248
Pers. Syn. Fung. p. 65. *Eriosphæria raripila* Sacc. F. V. ser. II, 326. *Melanomma pomiforme* Fuck., Rehm Asc. n. 36. — Peritheciis confertis v. sparsis, superficialibus, pomiformibus, circa ostiolum papilliforme impressis, lævibus, subtenuibus, rigidulis, atris, initio pilis rariusculis conidiophoris vestitis, latit. circiter 0,4 mill.; ascis fusoideo-clavatis, 65–75 = 12-14 octosporis, mucoso-paraphysatis; sporidiis distichis, ellipsoideis, uniseptatis, 2-guttatis, ad septum vix v. parum constrictis, hyalinis, 12-16 = 6-7. — Status conidicus sistit *Sporocybem albipedem* B. et Br. (*Fuckelina socia* Sacc. F. Ven. II, p. 326).

Hab. supra ligna truncorum exsiccatorum Quercus, Alni, Salicis, Ulmi etc. in Fennia meridionali per annum passim, in Suecia, Britannia, Gallia, Germania, Italia, Austria, Algeria, America boreali. — Perithecia juvenilia globosa, conico-papillata, et

pilis conidiophoris vestita senio glabrescunt et sæpius, collabascendo, umbilicata fiunt, quo statu notam *Sph. pomiformem* sistunt. — Var. *minor:* peritheciis subdistantibus, minoribus, (jugiter?) papillatis; ascis cylindricis 90 = 8; sporidiis 12 = 5–6½, 2-guttulatis, hyalinis. In ligno populeo Patavii, Jan. 1877.

2. **Melanopsamma Ruborum** (Lib.) Sacc. Mich. II. p. 58. *Sphæria Ruborum* Lib. Arduen. n. 340. — Peritheciis globoso-papillatis villo fuligineo interseminatis; setis cuspidatis, basi incrassatis, 200 = 6, septatis, fuliginis; ascis cylindraceo-fusoideis, breve stipitatis, apice tunica integra obtusis, 80–90 = 10, parce paraphysatis, 8-sporis; sporidiis fusoideis, 15 = 3½–4½, 2-4-guttulatis, hyalinis, denique 1-septatis, dilute fuscellis. 2249

Hab. in sarmentis emortuis Rubi fruticosi, Malmedy in finibus Galliæ et Germaniæ.

3. **Melanopsamma cryptostoma** (Lév.) Sacc. *Sphæria cryptostoma* Lév. Ann. Sc. nat. 1843, XIX, 213–335 (Pl. 7, fig. 35). — Peritheciis gregariis, globosis, papillatis, hirtis, atris e subiculo villoso concolori emergentibus; nucleo albo; ascis clavulatis, paraphysatis, octosporis; sporidiis oblongis utrinque acutis, monostichis, constricto-uniseptatis, hyalinis. 2250

Hab. ad ramos humi prostratos Ericæ cinereæ, Bois de Boulogne circa Parisios. — Habitus fere *Rosellinicæ Aquilæ.*

4. **Melanopsamma Pustula** (Curr.) Sacc. Mich. I, p. 347. *Sphæria Pustula* Curr. in Linn. Transact. XXII, p. 317, t. 59, f. 31. *Sph. perexigua* Bk., Cooke Handb. p. 863. — Subaggregata, nigra; peritheciis subglobosis; ascis octosporis; sporidiis distichis, subellipticis, 20–25 μ. longis, leniter curvulis, e hyalino chlorinis, plasmate bipartito, 1-septatis. 2251

Hab. in ligno putri, Bungay Britanniæ. — Habitus *Melanommatis Pulvis-pyrii.*

5. **Melanopsamma coffeicola** (B. et C.) Sacc. *Sph.* (pertusæ) *coffeicola* B. et C. Cuban Fungi n. 851. — Nuda; peritheciis late conicis glabris; ascis clavatis; sporidiis hyalinis biarticulatis, articulo superiore conico parvo, inferiore subelliptico, 25 μ. long. 2252

Hab. in ramis emortuis Coffeæ in Cuba. — Sporidia fere illa *Apiosporæ* imitantur.

6. **Melanopsamma confertissima** (Plowr.) Sacc. *Sph. confertissima* Plowr. Calif. Sphær. in Grev. VII, p. 73. — Peritheciis minutis, in greges dense stipatis, ambitu laxioribus, subsphæricis compres- 2253

sisque; ascis cylindraceis, 80–100 ≃ 10–15; sporidiis biseriatis, uniseptatis, subæqualibus, 15–20 ≃ 5, hyalinis.

Hab. in squamis strobilorum Sequojæ sempervirentis in California Americæ borealis.

7. **Melanopsamma lanuginosa** (B. et C.) Sacc. *Sph. lanuginosa* B. et C. North Amer. Fungi n. 898. — Peritheciis globosis, sursum leviter applanatis; basi lanuginosis; sporidiis uniseriatis, oblongis, uniseptatis, subbiconicis, inæquilateralibus. 2254

Hab. in ramis Robiniæ in Carolina inf. Amer. bor.

8. **Melanopsamma congesta** Speg. Fungi Arg. Pug. IV, n. 148. — Peritheciis globosis, atris, carbonaceis, minutis, 120–150 μ. diam. densissime gregariis, subconfluentibus, latissime matricem tegentibus, ostiolo papillato majusculo ornatis, glaberrimis; ascis cylindraceis, sursum truncato-rotundatis, deorsum attenuato-stipitatis, 42–50 ≃ 4–5, octosporis, paraphysibus filiformibus longioribus, obvallatis; sporidiis oblique monostichis, ellipticis, utrinque plus minusve rotundatis, 6–7 ≃ 3–3,5, primo continuis, dein spurie 1-septatis. 2255

Hab. in trunco carioso decorticato Celtidis Talæ in sylvis australioribus «Montes largos» dictis, Argent. Amer bor.

9. **Melanopsamma Bolleana** (Pass. et Thuem.) Sacc. *Melanomma Bolleanum* Pass. et Thüm. Contr. fung. Litor. n. 113, t. I, fig. 16. — Peritheciis subsuperficialibus .....; ascis oblongo-clavatis, membrana tenuissima, ægre perspicua, sex-octosporis; sporidiis ellipticis, plus minus longis, medio septatis, rectis vel curvulis, hyalinis (an semper?); paraphysibus brevibus articulatis. 2256

Hab. ad ramulos emortuos Rosmarini officinalis, Gorizia, Austr. merid. — Specimina incompleta. Adsunt perithecia minora stylosporea, sporis oblongis triseptatis, fuscis. An hæc *Hendersonia?*

10. **Melanopsamma mendax** Sacc. et Roum. Reliq. myc. Lib. Ser. II, n. 139, tab. XIX, fig. 6. — Peritheciis in subiculo late effuso velutino fuligineo denso gregariis, superficialibus, globoso-papillatis, 1/5 mill. diam.. nitidulis, levibus; ascis tereti-clavatis 130 ≃ 12–15, paraphysatis, breve stipitatis, apice rotundatis, octosporis; sporidiis subdistichis oblongo-didymis constrictis, 20–22 ≃ 8, utrinque obtusiusculis, hyalinis, denique pallide fuligineis. 2257

Hab. in sarmentis Rubi Idæi, Malmedy, Gallia et Germania. — A *Melanopsamma Ruborum*, quam habitu æmulatur, differt ascis et sporidiis multo majoribus.

11. **Melanopsamma Rhodomphalos** (Berk.) Sacc. *Sphæria rhodomphalos* Berk. Lond. Journ. 1845, p. 313. Curr. Linn. Transact. XXII, t. 57, f. 28. *Sph. rhodopis* Fr. Summa 389 (nomen). — Peritheciis globosis, denudatis, zona rosea circa ostiolum ornatis; ostiolo leniter depresso; ascis tereti-clavatis, breve stipitatis octosporis; sporidiis biseriatis, hyalinis v. chlorinis, subfusoideis, curvulis uniseptatis, binucleatis, 17-20 μ. long., medio subinde constrictis. 2258

Hab. in ligno putrescente, Cincinati, Ohio, Amer. bor.

12. **Melanopsamma latericollis** (Fr.) Sacc. Mich. I, p. 347. *Trematosphæria latericollis* Fuck. Symb. mycol. App. II, p. 31. *Sphæria latericollis* Fr. Syst. m. II, p. 464, non DC.! — Peritheciis sparsis subgregariisve, raro 2-3-confluentibus, media magnitudine, primo immersis demum subliberis, oblique ovatis seu irregularibus, aterrimis, ostiolo plerumque laterali, recto seu curvato, cylindraceo, perithecium subæquante, perforato; ascis oblongis, stipitatis, 8sporis, 80 ≃ 14; sporidiis distichis, oblongo-fusiformibus, utrinque obtusiusculis, rectis seu curvatis, didymis, ad septum arcte constrictis, loculis 1-2-guttulatis, dilutissime fuscis, 24 ≃ 7-8. 2259

Hab. in ligno putri decorticato Populi nigræ et Quercus in Germania et Suecia.

13. **Melanopsamma borealis** (Karst.) Sacc. Mich. I, p. 347. *Sphæria borealis* Karst. Myc. Fenn. II, p. 94. *Urnularia borealis* Karst. Enum. Fung. Lapp. p. 209. — Peritheciis sparsis erumpentibus, tandem basi tantum innatis, orbicularibus, applanatis demum vertice rimoso-dehiscentibus, glabris, atris, latit. 0,3-0,4 mill.; ascis fixis cylindraceo-subclavatis vel subcylindricis 50 ≃ 6 octosporis; sporidiis oblique monostichis, ellipsoideis, 2-guttulatis vel spurie tenuiter uniseptatis, hyalinis, 4-6 ≃ 2,5-4; paraphysibus parcis, filiformibus. 2260

Hab. ad lignum juniperinum vetustum in Lapponia rossica, Kitofka. — Species ulterius inquirenda; dignitas ejus generica facile est concedenda.

14. **Melanopsamma tenerrima** Speg. Fungi Arg. Pug. IV, n. 151. — Peritheciis erumpenti-superficialibus, conico-hemisphæricis, 200-250 μ. diam., glaberrimis, atris, teneris, tenui-membranaceis, contextu parenchymatico-anguloso, majusculo, distinctissimo, fumoso-olivascente, ostiolo papillato, subcarbonaceo, latiusculo, 20 μ. diam. perforato; ascis..... cito diffluentibus; sporidiis elliptico-cylindraceis, utrinque acutiuscule rotundatis, 32-37 ≃ 10-12, medio 1-septato-constrictis, loculis pergrosse 1-guttulatis, granulosis, hyalinis. 2261

Hab. in culmo putrescente Bambusaceæ speciei cujusdam ad ripas del Rio de la Plata prope Palermo, Amer. merid.

15. **Melanopsamma improvisa** (Karst.) Sacc. *Sph. improvisa* Karst. 2262
Mycol. Fenn. II, 93. *Melanomma improvisum* Karst. Symb. Myc. Fenn. *Zignoella improvisa* Sacc. Mich. II, 346. — Peritheciis gregariis vel sparsis, adnato-superficialibus, sphæroideis, vertice conoideo-attenuatis, papillatis, lævissimis, nitidulis, glabris, nigris, latit. 0,2–0,3 mill.; ascis cylindraceis, 80–90 ≃ 7 octosporis; sporidiis monostichis, oblongatis vel subellipsoideis, utrinque attenuatis, rectis vel inæquilateralibus 1–3-guttulatis vel spurie tenuiter uniseptatis, chlorino-hyalinis, 12–18 ≃ 5–7, paraphysibus filiformibus, coalescentibus.

Hab. ad lignum mucidum Alni prope Wasa Fenniæ. — Fructificatione *Melanopsammæ pomiformi* maxime affinis, habitu vero diversissima.

16. **Melanopsamma hydrotheca** Speg. Fung. Arg. Pug. III, n. 57. — 2263
Peritheciis primo sublenticularibus, tectis, dein erumpenti-superficialibus, globoso-hemisphæricis, densiuscule sparsis v. 3–5-aggregatis, atro-olivaceis, initio adpresse laxeque tomentoso-pruinulosis, serius glabris, basi tantum hyphis vestitis, $^1/_3$–$^1/_4$ mill. diam., ostiolo impresso pertusis; ascis late clavatis, sursum rotundatis, deorsum longiuscule attenuato-pedicellatis 100–110 ≃ 20–25, cito diffluentibus ac ægre visibilibus, aparaphysatis? sporidiis di-tristichis, ellipticis, utrinque obtusiuscule rotundatis, medio constricto-septatis 18–22 ≃ 10–12, granuloso-farctis, hyalinis.

Hab. ad ramulos emortuos dejectos Erythrinæ Cristæ-galli in nemorosis humidis prope la Recoleta, Argent. Amer. merid.

17. **Melanopsamma anaxæa** (Speg.) Sacc. *Amphisphæria anaxæa* 2264
Speg. Nov. Add. n. 71. Mich. II, p. 249. — Peritheciis tenui-membranaceo-carbonaceis, lenticularibus, ostiolo pertuso, latiusculo donatis 200–250 μ. diam., in ligno decorticato, sæpe dealbato insidentibus; ascis cylindraceis, antice rotundatis postice breviter ac nodulose pedicellatis, paraphysibus longioribus obvallatis, 80–90 ≃ 8–9, octosporis rarius tetrasporis; sporidiis ellipticis, medio uniseptatis non vel vix constrictis, utrinque rotundatis, non vel 1–2-guttulatis, crasse tunicatis, hyalinis, 12–15 ≃ 6–7.

Hab. in radicibus Dryadis octopetalæ in alveo Plavis, Belluno, in Italia boreali.

18. **Melanopsamma recessa** (C. et P.) Sacc. *Sphæria* (denudata) *re-* 2265
cessa C. et Peck. 29 Rep. on the St. Mus. New York. — Peri-

theciis gregariis, initio semi-immersis, glabris, depressis, nigro-fuscis v. nigris, 300 μ. diam., ascis subclavatis; sporidiis mono-distichis, ellipticis, uniseptatis, ad septum profunde constrictis, 13–20 ≃ 7–10, hyalinis.

Hab. in lignis emortuis, Tyre Amer. bor. — Perithecia subinde discoidea videntur.

19. **Melanopsamma texensis** (Cooke) Sacc., *Sphæria texensis* Cooke Fungi of Texas 143. — Sparsa, grisea; peritheciis subglobosis ligno atrato subimmersis, vix prominulis; ascis cylindraceis; sporidiis lanceolatis, uniseptatis, hyalinis, 15 ≃ 6. 2266

Hab. in ligno quercino, Texas Amer. bor. (Ravenel). — An *Diaporthe?*

20. **Melanopsamma Petrucciana** (Cald. et De Not.) Sacc., *Sphæria Petrucciana* Cald. Erb. cr. ital. n. 242, Comm. Critt. I, pag. 40, tab. II, fig. VI, *Amphisphæria Petrucciana* Cald. et De Not. Comm. Critt. I, pag. 223, Michel. II, 316. — Peritheciis innato-erumpentibus, tandem emersis, atris, sphæricis, subinde sphæroideo-conicis denique poro pertusis, sparsis, gregariisque, stromate subcinereo maculiformi thalliformi (proprio?) cinctis; ascis cylindricis breve stipitatis, apice rotundatis, paraphysibus filiformibus obvallatis, 150–160 ≃ 16–18, octosporis jodo non cœrulescentibus; sporidiis monostichis, ellipsoideis, utrinque obtuse rotundatis, 18–24 ≃ 11–13, 1-septatis, non constrictis, hyalinis. 2267

Hab. in cortice Cupressi prope Firenze Italiæ mediæ et in Gallia australi.

21. **Melanopsamma glandis** (Duby) Sacc. *Sphæria glandis* Duby Bot. Gall. 700, Mont. Fl. Alg. p. 504. — Sparsa aut hinc inde aggregata, aterrima, nitida; peritheciis orbiculatis, applanato-convexis, basi interdum subdilatatis ostiolo minimo vix prominulo, demum pertuso; ascis ventricosis utroque fine obtusis, 8sporis; sporidiis oblongis, uniseptatis, biseriatis. 2268

Hab. ad glandes humi delapsas Quercus cocciferæ in Algeria et Gallia.

22. **Melanopsamma Papilla** (Schw.) Sacc., *Amphisphæria Papilla* (Schw.) Mich. II, p. 138, *Sph. Papilla* Schw. Carol. n. 159. — Sparsa, atra, opaca, peritheciis tornatis, hemisphærico-conicis innatis, ostiolo papillæformi; ascis cylindraceis crassis, paraphysatis, octosporis; sporidiis oblique monostichis, ovoideo-biconicis, 40 ≃ 15–20, leniter constrictis, 2-nucleatis, hyalinis, jodii ope (æque ac ascis) flavescentibus. 2269

Hab. ad ligna et cortices Aceris etc. in Amer. bor. (Schwein., Farlow). — Solitaria, major, late conica, superficiali-innata, glaberrima, vix nisi sub lente perspicue rugulosa. Ostiolum distincte pertusum.

23. **Melanopsamma? europæa** Speg. Fungi Arg. Pug. IV, n. 150. — 2270
Peritheciis innato-superficialibus, basi matrici parce infossis, globoso-depressis, 250-350 μ. diam., ostiolo minuto, papillato-truncato donatis, sparsis vel gregariis, atris, subnitentibus, carbonaceis; ascis fusoideo-clavatis, sursum subtruncato-rotundatis deorsum in pedicellum parvulum attenuatis, 80-84 ≃ 12-14, octosporis, paraphysibus filiformibus, densiusculis obvallatis; sporidiis distichis, fusoideo-ellipticis, utrinque obtusiusculis, 27-28 ≃ 6-7, primo medio tantum 1-septato-constrictis, 4-6-guttulatis (dein triseptatis hyalinis, strato mucoso tenui ad apicem incrassato obvolutis).

Hab. in sarmentis putrescentibus Rubi discoloris in dumetis prope S. José de Flores, Argent. Amer. merid. — Species notis plurimis fructificationis *Lophiostomatibus* affinis videtur, sed adhuc ostiolum umboniforme poro rotundo pertusum visum est. « An *Massariella?* ».

24. **Melanopsamma? Diana** Speg. Fungi Arg. Pug. IV, n. 149. — 2271
Peritheciis laxe gregariis, lenticulari-hemisphæricis, 250-300 μ. diam., atris, glaberrimis, subcarbonaceis, epidermide velatis, prominulis, ostiolo vix papillulato erumpente, non exerto ornatis; ascis cylindraceo-clavatis, sursum obtuse rotundatis ac crasse tunicatis, deorsum breviter attenuato-pedicellatis, 95-110 ≃ 16-18, octosporis paraphysibus filiformibus obvallatis; sporidiis recte vel oblique distichis, ellipticis vel elliptico-elongatis, rectis vel inæquilateralibus, utrinque attenuato-rotundatis, 30-35 ≃ 9-10, primo medio 1-septato-constrictis, loculis grosse 2-guttulatis, stratoque crassiusculo, 2-3 μ. crass., obvolutis (dein muco destitutis, 3-septato-constrictis, hyalinis; an postremo fuligineis?).

Hab. in ramis dejectis putrescentibus Cephalanthi Sarandi in dumetis uliginosis à las Conchas, Argent. Amer. merid. — Species a genere *Malanopsamma* longe abhorrens et facile ad novum genus trahenda; characteres peritheciorum *Didymosphæriæ*, fructificationis fere *Massariæ*, ab utroque tamen valde diversa. « Probabiliter *Massariella* ».

BERTIA De Not. in Giorn. bot. ital. I, p. 335 (Etym. a Doct. *Josepho Berti*, botanophilo ex Porto Maurizio Ital. bor.). — Perithecia su-

perficialia vel basi insculpta, coriaceo-carbonacea, corrugata vel tuberculata, atra, ostiolo impresso minuto. Asci 4-8spori, paraphysati vel non. Sporidia majuscula typice uniseptata, teretiuscula (rarius 3-5-septata), hyalina. — Fungi lignicolæ, rarius lichenicolæ.

I. *Eubertia:* sporidiis uniseptatis.

1. **Bertia moriformis** (Tode) De Not. in Giorn. Bot. ital. I, pag. 335, 2272
Sacc. Fungi ital. tab. 440, *Sphæria moriformis* Tode Meckl. II, pag. 22, fig. 90, *Sph. claviformis* Sow., *Sph. rubiformis* Sow., *Sph. rugosa* Grev. — Peritheciis confertis, superficialibus, forma varia, cylindraceis, sphæroideis, corrugato-tuberculatis, atris, glabris, rigidis, majusculis, circiter 0,6 mill. lat.; ascis pedicellatis, fusoideo-clavatis, 135-170 ≃ 15-18, paraphysibus septulatis obvallatis; sporidiis octonis, conglobatis, elongatis, ut plurimum curvulis, guttulis 2 fœtis vel spurie uniseptatis, hyalinis, 30-38 ≃ 5-7.

Hab. in lignis corticibusque arborum variarum, e. g. Populi, Sorbi, Salicis, Fagi, Quercus in Suecia, Belgio, Britannia, Gallia, Italia, Fennia, America bor., Java et Kamtschatka.

2. **Bertia submoriformis** (Plowr.) Sacc., *Sphæria submoriformis* 2273
Plowr. Grev. V, p. 74. — Peritheciis irregularibur, rugosis, erumpentibus, magnitudine satis variis; ascis octosporis; sporidiis distichis teretiusculis, curvulis, 20-23 ≃ 3, uniseptatis, hyalinis.

Hab. in corticibus putrescentibus, S. Francisco Americæ bor. (Harkness).

3. **Bertia italica** Sacc. et Speg. Mich. I, p. 404, Fungi ital. t. 336. 2274
— Peritheciis gregariis, superficialibus et facile secedentibus, globulosis, majusculis, $^1/_2$ mill. diam., vertice obtusis, undique et perspicue rugoso-tuberculatis. nigris, subopacis, nucleo nigro; contextu coriaceo-molliusculo, distincte laxe parenchymatico fuligineo; ascis elongato-clavatis, 145 ≃ 28, apice obtusiusculis, breve crasseque stipitatis octosporis, paraphysibus nullis visis; sporidiis distichis, 32-35 ≃ 12-14, oblongis vel subfusoideis, medio sæpe constrictis, 1-septatisque, utrinque obtusiusculis, 2-guttatis vel granulosis, hyalinis.

Hab. in cortice Juniperi communis, Conegliano, Ital. bor. (Spegazzini). — A *Bertia moriformi* De Not., *B. querceti* Rehm et *B. lichenicola* De Not. ascis sporidiisque multo crassioribus præsertim distinguenda; a *B. macrospora* Sacc. defectu paraphysum sporidiisque brevioribus.

4. **Bertia australis** Speg. Fungi Arg. Pug. IV, n. 157. — Peritheciis 2275

dense gregariis, globosis, 300–350 μ. diam., in sicco depressis, rugulosis, ostiolo latiuscule umbilicato perforatis, atris, glaberrimis; ascis cylindraceis antice obtusiuscule rotundatis deorsum breve ac crasse attenuato-stipitatis, p. sporif. 110–120 ≃ 12, ped. 12–15 ≃ 7–8, octosporis, aparaphysatis; sporidiis oblique monostichis vel rarius subdistichis, elliptico-elongatis, utrinque obtusiuscule rotundatis, 25 ≃ 8–8,5, medio 1-septato-constrictis, loculis primo grosse 2-guttulatis, dein medio spurie 1-septatis, hyalinis.

Hab. in truncis vetustis nec non ramis dejectis Celtidis Talæ et Sambuci australis in sylvis australioribus «Montes Largos» dictis, Argent. Amer. merid. — Cum *Sphæria* (Bertia) *moriformi* Tode f. *minore* Mont. in Gay. Fl. Chil. vol. VIII, p. 475 probabiliter identica.

5. **Bertia lichenicola** De Not. in Rabh. Fungi eur. ed. II, 950 (1864), Sacc. Fungi ital. t. 439, *Rhagadostoma corrugatum* Körb. Par. p. 473 (1865). — Peritheciis confertis, emersis vel semiemersis, sphæroideis, corrugatis, glabris atris, circiter 0,3 mill. latis; ascis pedicellatis, clavatis, 98–115 ≃ 14–18, tetrasporis; sporidiis distichis elongatis, plerumque curvulis, 1-septatis, hyalinis, 30–50 ≃ 7–9. 2276

Hab. in thallo Solorinæ croceæ in Lapponia, Britannia, Germania et Italia. — Sec. Karst. sporidia rarius 3-septata fiunt. Sec. Rehm habetur forma ascis bisporis.

6. **Bertia Vitis** Schulz. in Verhandl. zool.-bot. Gesell. Wien XX, p. 644, Thuem Pilze Weinst. p. 113. — Peritheciis rotundatis, superficialibus, gregariis, sæpe connatis, ostiolo detruso demum aperto, nigris, carbonaceis; ascis clavatis vertice acutatis, octosporis; sporidiis cylindraceis, curvulis, uniseptatis, dilutissime flavidis, 9 μ. long.; paraphysibus sursum coalescentibus, simplicibus. 2277

Hab. ad sarmenta arida Vitis viniferæ in Slavonia.

7. **Bertia querceti** Rehm Ascom. 43, Wint. Diagn. p. 5. — Peritheciis gregariis vel subconfluentibus, villo tenuissimo, arachnoideo, repente, fuligineo insidentibus et ab eo vestitis, globosis, papillatis, rugosis, demum collapsis, subglabris, nitidis, atris, 0,6–0,7 mill. latis, ascis longissimis, elongato-cylindraceis, angustis, stipitatis, 8-sporis, 130–180 ≃ 10–12; paraphysibus filiformibus, simplicibus, obscure septatis, ascos æquantibus vel plerumque eis longioribus; sporidiis subdistichis vel inordinatis, fusiformibus, rectis vel rarius parum curvatis, hyalinis, spurie uniseptatis, supra septum paullulo incrassatis, 36–42 ≃ 5, 2guttatis granulosisque. 2278

Hab. in ramis quercinis in Franconia. — Cl. Rehm in Asc.

Diagn. p. 15 hanc speciem ad *Enchnosphæriam pinaterum* Fuck. ducit, sed diagnosis Fuckelii longe differt præcipue ob sporidia 2-septata.

II. *Bertiella*: sporidiis tandem 3-5-septatis.

8. **Bertia macrospora** Sacc. Mich. I, p. 452, Fungi ital. t. 136. — 2279
Peritheciis dense gregariis confluentibusque, superficialibus subrotundis, repandisque ubique obtuse verruculosis, atris opacis, circiter $^3/_4$–1 mill. diam., ostiolo brevi papillato, quandoque vix distincto, contextu pachydermatico, carbonaceo, atro; ascis cylindraceo-clavatis, apice rotundatis, deorsum crassiuscule attenuato-stipitatis, 100–130 ≃ 15, stipite ima basi noduloso appendiculatoque, paraphysibus filiformibus brevibus parcis obvallatis, 8-sporis; sporidiis oblique monostichis vel distichis, elongato-fusoideis, 40–45 ≃ 10–12, plerumque curvulis, utrinque obtuse attenuatis, constricto-1-septatis, crasse 4-guttatis, tandem tenuiter, 3-septatis, hyalinis.

Hab. in ligno decorticato putri f a g i n e o in sylva Cansiglio Treviso, Ital. bor. — Affinis *Bertiæ querceti* Rehm: differt vero sporidiis plus quam duplo crassioribus, peritheciis magis rugosis, subopacis, etc.

9. **Bertia parasitica** H. Fab. Sphær. Vaucl. pag. 95, t. 3, fig. 33. — 2280
Peritheciis superficialibus, carbonaceis, duris, nunc solitariis, nunc confluentibus, hemisphæricis, atris Fragorum instar papillatis, vertice poro pertusis, 0,5–0,6 mill. diam.; ascis clavatis, stipitatis, 8-sporis, 60–70 ≃ 10; sporidiis farctis, oblongis, utrinque obtusis, hyalinis, 3–5 septatis, nonnumquam loculo subintermedio septo longitudinali diviso, 15–20 ≃ 4–5.

Hab. in crusta E u t y p æ l a t æ, Vaucluse Galliæ, rarissime.

LENTOMITA Niessl Not. Pyr. p. 44 (Etym. mihi ignota). — Perithecia immersa, demum erumpentia vel libera, sub-coriacea vel submembranacea, in rostrum plus minus distinctum sæpe abbreviatum attenuata. Asci tenues, membrana interna apice incrassata, octospori. Sporidia didyma, hyalina. Paraphyses distinctæ. — *Rhynchostomatis* analogum genus, sed sporidiis hyalinis.

1. **Lentomita brevicollis** Niessl Notiz. Pyr. p. 45. — Peritheciis gre- 2281
gariis e ligno dealbato erumpentibus dein liberis, nudis, glabris, atris, minutis, 130–150 μ. diam., conoideis, basi applanata, versus apicem in ostiolum breve conicum attenuatis, substantia coriaceo-membranacea, basi plerumque collapsis; ascis e clavato subcylin-

draceis in stipitem brevem attenuatis, mox evanescentibus, membrana interna apice parum incrassata, 70–75 ≃ 10–13, 8sporis; sporidiis initio distichis mox monostichis, ellipticis vel oblongis, obtusis, didymis, biguttatis, medio vix vel haud constrictis, hyalinis, 9–13 ≃ 6–8; paraphysibus distinctis ascos paulo superantibus ramulosis, guttulatis.

Hab. in ligno emortuo Tiliæ, prope Czeitsch Moraviæ.

2. **Lentomita cæspitosa** Niessl Notiz. Pyr. p. 46. — Peritheciis dense 2282
gregariis vel cæspitosis, liberis, hemisphærico-conoideis, ostiolo conico sæpe abbreviato, glabris, tenuibus, fragilibus, majusculis, 300–350 μ. diam., atris; ascis valde elongatis, tubulosis, in stipitem attenuatis, 150–180 ≃ 14–15, membrana interna apice incrassata; sporidiis oblique monostichis oblongo-ovatis, rectis, medio septatis valdeque constrictis, parte superiori paulo inflata late rotundata, inferiori attenuata, 17–19 ≃ 8, hyalinis; paraphysibus multis, tenuibus; parum superantibus, apice ramulosis.

Hab. in ramis decorticatis Cratægi Oxyacanthæ, prope Gratz Styriæ.

3. **Lentomita crassicollis** (De Not.) Sacc., *Sphæria crassicollis* De 2283
Not. Micr. ital. Dec. VII, p. 107, t. II. — Peritheciis gregariis ligno superficie nigrificato semi- vel penitus immersis, vix 1 mill. diam., nigris, tenuibus, ostiolo erumpente perithecio sublongiore recto vel curvo, cylindraceo, annulatim sulcato et asperulo; ascis cylindraceis, brevissime stipitatis, paraphysatis, octosporis, 125–130 ≃ 13–15; sporidiis oblique monostichis, constricto-didymis, utrinque rotundatis, hyalinis, 17 ≃ 7–7,5.

Hab. ad frustula lignea in M. Cenisio (Italia).

4. **Lentomita Schulzeri** (Schulz.) Sacc., *Ceratostoma Schulzeri* Pi- 2284
rotta Funghi Vitign. p. 38, *Ceratostoma Vitis* Schulz. — Crustas compactas, lignicolas formans; peritheciis dense gregariis, globosis, atris, longe rostratis, tuberculatis, deformatis, solitariis vel gregariis; ascis clavato-fusoideis, sex- raro octosporis, tenuissimis, cito evanidis; sporidiis oblongo-ovatis, medio constrictis, uniseptatis, bi- vel quadrinucleatis, dilute flavidis, 16–17 ≃ 4; paraphysibus simplicibus, filiformibus, nucleatis.

Hab. ad sarmenta arida Vitis viniferæ in Slavonia. — An *Diaporthe?*, non tamen *D. citicola*.

5. **Lentomita ligneola** (B. et Br.) Sacc., *Sphæria ligneola* B. et Br. 2285
in Ann. N. H. n. 883, t. 11, fig. 29. — Peritheciis globosis, subpallidis, levibus, subimmersis; rostro elongato, obtuso; ascis .....;

sporidiis ellipticis, subinæquilateralibus, 7,5–10 μ. long., 2-nucleatis tandem uniseptatis, hyalinis.

Hab. in ligno quercino emortuo, Somerset Britanniæ. — Habitus fere *Ceratostomellæ cirrhosæ* sed levis, glaucescens, sporidiisque denique bilocularibus.

6. **Lentomita stylophora** (B. et Br.) Sacc., *Sphæria stylophora* B. et Br. Ann. N. H. n. 976, t. 17, fig. 29, Cooke Handb. n. 2630. — Peritheciis initio tectis, denique liberis, in greges subcirculares dispositis, ovoideis, sursum attenuatis; ostiolis perithecio longioribus; ascis late clavatis; sporidiis fusoideis, uniseptatis, hyalinis, distichis, utrinque appendiculatis. 2286

Hab. in ramis Aceris platanoidis, Mossburnford Britanniæ. — An *Diaporthe?*

7. **Lentomita Auerswaldii** (Fleisch.) Sacc., *Gnomonia Auerswaldii* Fleisch. in Auersw. Myc. Eur. Pyr. p. 26, fig. 132. — Peritheciis rostellatis .....; ascis teretibus, breve crassiuscule stipitatis, apice rotundatis, paraphysatis, octosporis, 90 ≃ 8–10; sporidiis monostichis, oblongo-ellipsoideis, utrinque rotundatis, constricto-1-septatis, 16–17 ≃ 7–8, hyalinis. 2287

Hab. in ramis Genistæ tinctoriæ in Germania.

VENTURIA De Not. et Ces. Schema Sf. in Comm. critt. p. I, p. 225 prope minore parte (nec De Not. in Att. VI, Riun. Sc. p. 484), Fr., Cooke, Karst., Sacc. etc. (Etym. a mycologo ill. *Ant. Venturi*). — Perithecia subsuperficialia setulosa, ostiolata, membranacea vel carbonaceo-membranacea. Asci octospori, sessiles vel brevissime pedicellati, aparaphysati. Sporidia oblonga vel ovoideo-ellipsoidea, uniseptata, hyalina vel luteola. — Fungilli minutissimi, plerumque foliicolæ. — Genus *Venturia*, quale primitus condidit cl. De Notaris (in Atti VI, Riun. Sc. p. 484), sistit *Pleosporæ* species setosas, quarum sporidia opaca, male observata, prout didyma æstimavit cl. Auctor. Serius (in Schema Sfer.) cl. De Not. et Ces. ad hoc genus retulerunt nonnullas specis, a primis vere recedentes, quæ vero sensum præstiterunt genuinæ *Venturiæ*, qualis hodie universim usurpatur.

A) In Dicotyledoneis lignosis.

1. **Venturia chlorospora** (Ces.) Karst. Myc. Fenn. II, 189, Sacc. Fungi ital. t. 349, *Sphæria chlorospora* Ces. Erb. critt. ital. n. 296, *Sphærella chlorospora* (Ces.) De Not. Sfer. ital. p. 86, t. XCVII, 2288

(forma decalvata), *Sphærella canescens* Karst. l. c. — Peritheciis globulosis, 50 μ. diam., laxe cellulosis, pilis rigidulis aterrimis basi incrassatis, 40–50 ≃ 4, undique, præcipue vertice, vestitis; ascis cylindraceo-clavatis, 50–60 ≃ 12–14, paraphysibus nullis visis, octosporis; sporidiis subdistichis, oblongo-ovatis, 14–16 ≃ 6–6,5, biloculatibus, vix constrictis, amœne luteolis.

Hab. in foliis putrescentibus Quercus, Salicum, Pyri, Pruni, Sorbi, Cratægi etc. in Italia, Germania, Gallia, Fennia. — Var. *Salicis vitellinæ:* ascis cylindraceo-obclavatis, subsessilibus, 44–50 ≃ 14–15; sporidiis didymis 15–16 ≃ 6, chlorinis. — Var. *Pruni Cerasi:* ascis angustioribus et longioribus 75 ≃ 12, sporidiis 12–14 ≃ 6. — Var. *Sorbi aucupariæ:* ascis 50 ≃ 13; sporidiis 12–15 ≃ 5½–8. — Var. *Pyri:* peritheciis parcius setulosis et sporidiis obscurioribus; ascis 65–70 ≃ 10–12; sporidiis 14 ≃ 5½–6, atro-olivaceis; perithecii setulis 20–30 ≃ 4, basi incrassatis. — Var. *microspora:* Sacc. Fungi ital. t. 310: ascis 50 ≃ 8; sporidiis 8–10 ≃ 4. In foliis quercinis in Ital. bor.

2. **Venturia ditricha** (Fr.) Karst. Myc. Fenn. II, 188, *Venturia maculans* Peck 30 Rep. on the St. Mus., *Sphæria ditricha* Fr. Syst. myc. II, p. 515, *Vermicularia ditricha* Fr. Summ. Veg. Scand. p. 420. — Peritheciis ut plurimum hypophyllis, subgregariis, maculæ griseæ, inderminatæ, confluenti insidentibus, subsphæroideis, atris, ostiolo papillato, setis subsenis, continuis, 40–90 ≃ 6, spiniformibus, erecto-divergentibus, concoloribus obsitis, minimis; ascis brevissime pedicellatis vel sessilibus, elongatis, 36–45 ≃ 10–12, octosporis, tenuiter paraphysatis; sporidiis distichis, ovoideo-oblongatis, uniseptatis, chlorino-hyalinis, 12–16 ≃ 5–6, loculo inferiore sæpius tenuiore. — Sec. Fuck. spermogonium sistit *Asteroma Betulæ* Desm. 2289

Hab. in foliis Betulæ albæ, B. verrucosæ, B. populifoliæ in Fennia, Lapponia, Suecia, Germania, Britannia, Gallia, Italia, Amer. boreali. — *Venturia maculans* Peck sistit formam solito paulo majorem.

3. **Venturia inæqualis** (Cooke) Wint., *Sphærella inæqualis* Cooke Handb. 2758. — Hypophylla; peritheciis sparsis, innatis, globosis, nigris, setulis 3–4 epidermidem perforantibus coronatis; ascis ventricosis, deorsum attenuatis, sessilibus 60 ≃ 12; sporidiis biseriatis vel stipatis, uniseptatis, dilute flavidis, 12–13 ≃ 6, loculo superiore subgloboso, infero duplo longiore; paraphysibus ramulosis. 2290

Hab. in foliis emortuis Pyri Ariæ, P. communis et P.

Mali nec non Cratægi, Salicis, Fraxini etc. in Britannia, Germania et Helvetia.

4. **Venturia Kunzei** Sacc. Fungi Ven. Ser. V, p. 174, *Chætomium circinans* Wallr. Comp. n. 1809, *Stigmatea Chætomium* (Kunze) Fr. Summa Veg. Scand. p. 422, *Dothidea Chætomium* Kunze in Fr. S. M. II, p. 563 (nec *Venturia Chætomium* (Corda) De Not.). — Peritheciis epiphyllis, gregariis, globulosis, subsuperficialibus, nigris, setulis acicularibus, 50–60 ≃ 4, fuligineis vestitis; ascis clavulatis, 45 ≃ 10–12, aparaphysatis, 8-sporis; sporidiis distichis, oblongo-clavulatis, 8–10 ≃ 4–5, tenuiter 1-septatis, vix constrictis, dilutissime chlorinis. 2291

Hab. in pag. sup. foliorum nondum emortuorum Rubi cæsii in Britannia, Suecia, Germania, Belgio, Gallia et Italia.

5. **Venturia Clintonii** Peck 28 Rep. on the St. Mus. New York t. II, fig. 22–25. — Maculis indeterminatis, subcircularibus; peritheciis hypophyllis, subliberis, globosis, nigris, setulis paucis, nigris, rectis vestitis; ascis linearibus; sporidiis uniseriatis, uniseptatis, obovatis, luteolis, vel subolivaceis, 10 μ. long., septo plerumque sporidii basi propiore. 2292

Hab. in foliis dejectis Corni circinatæ, Buffalo, Amer. bor. (Clinton). — Præcipue sporidiis monostichis subcoloratis mox distinguenda species.

7. **Venturia ilicifolia** Cooke Handb. n. 2782. — Sparsa, epiphylla, rarius et amphigena; peritheciis minutis, subsuperficialibus, globulosis, 90–100 μ. diam., poro pertusis, setulis, 50–60 ≃ 5, fuligineis, rigidulis vestitis; ascis subfusoideis, minutis, 25–30 ≃ 4–5; sporidiis distichis, elliptico-oblongis, uniseptatis, vix constrictis, 6–8 ≃ 1,5–2, hyalinis. 2293

Hab. ad folia putrescentia Ilicis Aquifolii et I. balearicæ (et Salicis capreæ?) in Britannia, Germania, Gallia et Italia boreali.

7. **Venturia nobilis** Sacc. Fungi Ven. Ser. IV, pag. 174, Fungi ital. t. 352. — Peritheciis phyllogenis, erumpenti-superficialibus, globoso-lenticularibus, atris, setulis remotiusculis, 50 ≃ 1½, rigidulis acutis, basi incrassatis, conspersis; ostiolo minuto, impresso; perithecii contextu atro, obsolete areolato; ascis cylindraceo-subclavatis, 35–40 ≃ 4–5, fasciculatis, aparaphysatis, 8sporis; sporidiis distichis v. oblique monostichis oblongo-fusoideis, 10 ≃ 3, rectis, curvulisve, denique 1-septatis, hyalinis. 2294

Hab. in foliis emortuis Lauri nobilis, Selva, Treviso, Ital. bor. rarius.

8. **Venturia Loniceræ** (Fuck.) Sacc., *Sphæria Loniceræ* Fuck. Symb. myc. p. 111. — Peritheciis plerumque hypophyllis, sparsis, *Venturiæ ditrichæ* magnitudine, vertice parce longeque setulosis, atris, erumpentibus; ascis oblongis, 8sporis; sporidiis subdistichis, oblongo-ovatis, didymis, pallide flavis, 10 ≃ 4. — *Asteroma Loniceræ* Desm. sec. Fuck. sistit spermogonium. 2295

Hab. in pagina plerumque inferiore foliorum Loniceræ Xylostei prope Œstrich Rhenogoviæ et in Jura Helvetiæ.

9. **Venturia vermiculariæformis** (Fuck.) Sacc., *Sphæria vermiculariæformis* Fuck. Symb. myc. pag. 110. — Peritheciis in maculis vagis gregariis, dein superficialibus, punctiformibus, globosis, vertice parum setulosis, atris; ascis subsessilibus, cylindraceis, 8spori, 58 ≃ 8; sporidiis oblique monostichis, ovatis, didymis, flavis, 8 ≃ 4. — Status conidiophorus sistit *Stysanum sphæriæformem* Fuck. (an et Auersw?). 2296

Hab. in foliis exsiccatis Evonymi europæi, rarius et Loniceræ Xylostei prope Œstrich Germaniæ.

10. **Venturia Orbicula** (Schwein). C. et Peck 25 Rep. p. 105, *Sphæria Orbicula* Schw. Syn. Amer. bor. n. 1789. — Peritheciis minutis globosis, superficialibus, hinc inde in greges orbiculares nigricantibus congestis, setulis nigris, persistentibus hispidulis; ascis brevibus subclavatis; sporidiis sparsis, uniseptatis, loculis sæpius inæqualibus, 10 ≃ 2,6, dilute coloratis. 2297

Hab. in pag. infer. foliorum Quercus montanæ, Q. tinctoriæ, Q. albæ in Amer. bor., Bethlehem, Sandlake, Albany, Guilderland. — Cl. Peck *Sph. Orbiculam* Schw. ad suam speciem non citat, sed non diversæ videntur. — Sec. Schw. l. c. greges peritheciorum margine quasi linea nigra limitati sunt, 6–7 mill. lat.

11. **Venturia Grossulariæ** (Auersw. et Fleisch.) Sacc. *Stigmatea Grossulariæ* Auersw. et Fleisch. in Hedw. 1869, p. 89. — Peritheciis membranaceis atris, ovatis, in superiore parte pilis rigidis ornatis; ascis clavatis, sessilibus, 8-sporis, membrana duplici non visibili; sporidiis subbiserialibus, ovatis, inæqualiter diblastis (more *Stigmateæ Potentillæ* Fr.) fuscidulis, 10 ≃ 4 (cellula majore 6, minore 4 μ. longis). 2298

Hab. in foliis Ribis Grossulariæ in Germania.

12. **Venturia Dickiei** (B. et Br.) Ces. et De Not. Schem. Sfer. p. 51, *Sphæria Dickiei* B. et Br. Ann. N. H. n. 617, t. X, fig. 8, *La-* 2299

siobotrys Linnææ Dickie, Berk. Out. pag. 404. — Peritheciis in soros orbiculares, 1–1,5 m. lat. coacervatis, epiphyllis, erumpentibus, dein liberis, superficialibus, subiculo filamentoso, fusco insidentibus, subsphæroideis, ostiolo papilliformi, atris, vertice setis spiniformibus, concoloribus, 40–80 m. longis armatis; ascis sessilibus, elongatis, obtusis, 35–40 ≃ 8–10 octosporis; sporidiis distichis, oblongatis, 4-guttulatis, tandem sæpe uniseptatis, chlorino-hyalinis (demum obscurioribus), rectis, 10–14 ≃ 3–4.

Hab. in foliis languidis Linnææ borealis in Fennia, Britannia et America boreali.

13. **Venturia pulchella** C. et Peck. 25 Rep. p. 106. — Peritheciis 2300
minutis in areolas irregulares v. angulares congregatis, nigris, setulis nitidulis concoloribus obsitis; ascis cylindraceis v. clavatis 60 ≃ 7; sporidiis monostichis, uniseptatis, dilute flavidis, 7–9 ≃ 3 long., loculis sæpius inæqualibus; paraphysibus (genuinis?) subdichotomis.

Hab. in Amer. bor. Center, in pag. inf. foliorum Cassandræ calyculatæ. — Folia mycete invasa mox decidunt.

14. **Venturia Myrtilli** Cooke in Journ. Bot. 1866, p. 245, t. L, f. 4. 2301
Sphæria Vaccinii Fuck. Symb. myc. p. 106, (1869). — Peritheciis amphigenis sparsis vel gregariis, superficialibus, subsphæroideis, atris, setis spiniformibus, longis, concoloribus armatis, minimis; ascis e basi ampliata angustatis, 50 ≃ 12–14, octosporis; sporidiis distichis vel in asci parte inferiori conglobatis, ovoideo-oblongatis, uniseptatis, medio non constrictis, rectis, chlorino-hyalinis, 12–14 ≃ 4–5.

Hab. in foliis semiputridis Vaccinii Myrtilli, V. uliginosi (et Cassiopejæ) in Germania, Britannia, Fennia, Amer. bor. et regione Arctica. — Setæ simplices, inarticulatæ, basi curvatæ, longit. 100–120 m. A *Venturia cincinata* Fr. Summ. Veg, Scand. p. 405 nondum descripta forte non diversa, teste Karst.

15. **Venturia compacta** Peck, 25 Rep. p. 106, — Peritheciis minu- 2302
tis, in areolas circulares dense congregatis, nigris, setulis brevibus copiosis concoloribus obsitis; ascis cylindricis; sporidiis monostichis aut sparsis, uniseptatis, subolivaceis 12–15 m. long., loculis sæpius inæqualibus.

Hab. in America boreali, Sandlake, in pagina inferiore foliorum Vaccinii macrocarpi.

16. **Venturia atramentaria** Cooke Grev. I, p. 175. — Hypophylla, 2303
gregaria, in maculis decoloratis maculiformiter-aggregata; peritheciis subglobosis, setulis densis, brevibus, patentibus, nigris, ve-

stitis; ascis cylindraceis; sporidiis uniseriatis, ellipsoideis (maturitate probabiliter 1-septatis).

Hab. in foliis Vaccinii uliginosi Lochnagar Britanniæ (B. White). — A *V. Myrtilli* peritheciis majoribus, aggregatis, setulis crebrioribus distinguenda.

17. **Venturia Barbula** (B. et Br.) Cooke Handb. n. 2784. Rehm. Asc. n. 293, *Sphæria Barbula* B. et Br. Ann. N. H. n. 870, t. 10, fig. 20. — Peritheciis cæspitulosis, globulosis collabascentibus, setulis acutis, brevibus, fuligineis densiuscule vestitis; ascis cylindraceis, 60 ≃ 6, octosporis, parce paraphysatis; sporidiis oblongis, obtusis, rarius ovoideis 1-septatis, 8–10 ≃ 4,5, monostichis, hyalinis, strato exiguo mucoso, sæpius obvolutis. 2304

Hab. in cortice Pinorum in Britannia et Germania.

18. **Venturia pusilla** Speg. et Roum. Reliq. Lib. in Rev. myc. II, 23. (*Sphæria conoplea* a *acicola* Lib. in Herb.) *Vent. conoplea* Cooke in Grev. VIII, p. 87. — Peritheciis gregariis minutissimis 130 μ. diam., superficialibus, tenui-membranaceis, cupulato-collapsis, pilis rigidulis atris, 20–40 ≃ 5; sporidiis cylindraceo-ellipticis, medio uniseptatis, hyalinis, loculo superiore parum crassiore, 6–7 ≃ 2. 2305

Hab. in acubus putrescentibus Pini sylvestris, prope Malmedy in finibus Galliæ et Germaniæ.

19. **Venturia Chætomium** (Corda) Ces. et De Not. Schema pag. 225. *Sphæria Chætomium* Corda Ic. fung. t. 2, p. 29, fig. 152, Desm. 19 Not. p. 12 (nec *Dothidea Chætomium* Kunze), *Niesslia Chætomium* (Corda) Auersw. Myc. Eur. Pyr. p. 30, fig, 152, *Chæt. pusillum* Fr. S. M. III, 255. — Amphigena, superficialis, gregaria, aterrima; perithecis minutis, $^1/_8$–$^1/_{10}$ mill. diam., globosis, poro apertis, siccitate pezizoideo-collabentibus, superne glabris, nitidis, inferne setis nigris, 30–40 μ. long., subopacis, brevibus, rigidis, acutis, continuis, strigosis; nucleo albido; ascis fusiformibus, 35 μ. long.; sporidiis hyalinis, minutis, cylindricis, obtusiusculis, rectis vel subcurvulis, absque ordine dispositis, 3-5-guttulatis, 15 ≃ 3, 1-septatis, non constrictis. 2306

Hab. in foliis dejectis Pinorum in Suecia, Germania et Gallia. — Sec. Auersw. l. c. genus *Niesslia* a *Venturia* distingueretur tunica ascorum apice perforata.

20. **Venturia Spegazziniana** Cooke in Mich. I. 440, F. it. t. 423. — Peritheciis laxe gregariis, superficialibus, globulosis, senio umbilicato-collapsis, $^1/_{10}$–$^1/_8$ mill. diam., ostiolo impresso pertusis, undisetulis divergentibus, acutis, basi incrassatis, 40 ≃ $3^1/_2$–4, 1-cellula- 2307

ribus, atris vestitis; contextu perithecii minute celluloso fuligineo; ascis cylindraceo-clavatis breve stipitatis, apice rotundatis, 35–40 $5^1/_2$–6, aparaphysatis, octosporis; sporidiis distichis v. oblique monostichis, cylindraceo-fusoideis, 10–11 ≃ 3, constricto-1-septatis, hyalinis.

Hab. in sarmentis corticatis emortuis Vitis viniferæ, Conegliano Ital. bor. et in foliis dejectis Eryngii agavifolii in paludosis à la Boca del Riachuelo, Argent. Amer. bor. — Adest subiculum pulverulento-pruinosum albido-roseum, inter perithecia inspersum.

B) In Dicotyledoneis herbaceis.

21. **Venturia Petasitidis** (Fuck.) Sacc. *Sphæria Petasitidis* Fuck. 2308
Symb. myc. p. 96. — Peritheciis superficialibus, gregariis, magnitudine eorum *Vent. Kunzei*, vertice parce setulosis, ovatis, aterrimis, in maculis purpureis; ascis ventricoso-elongatis, 8sporis, 48 ≃ 10; sporidiis ovato-clavatis, medio parum constrictis, didymis, dilute flavescentibus, 10 ≃ 5.

Hab. in pagina superiore foliorum Petasitidis vulgaris, Winkler Wald Germaniæ.

22. **Venturia Johnstonii** (B. et Br.) Sacc. Mich. II, p. 55, *Dothidea* 2309
Johnstonii B. et Br. Cooke Handb. p. 806. — Peritheciis epiphyllis in acervulos maculiformes hinc inde dense aggregatis, globoso-conicis circa verticem setulis cuspidatis, 26–40 ≃ 5, atris vestitis; ascis cylindraceis, brevissime stipitatis, 50–60 ≃ 15, apice tunica integra obtusiusculis, aparaphysatis, 8sporis; sporidiis distichis clavato-oblongis, 15–16 ≃ $5^1/_2$–6, 1-septatis, lenissime constrictis, 4-guttulatis, chlorino-hyalinis.

Hab. in foliis nondum emortuis Epilobii montani in Britannia, Gallia et Amer. bor.

23. **Venturia glomerata** Cooke Grev. III. p. 69. Mich. I, p. 507. — 2310
Peritheciis in maculis decoloratis hypophyllis, cespitulos minutos formantibus, globoso-conicis 50 μ. diam., nigris, erumpentibus, membranaceis, setulis rigidis acutis coronatis; ascis cylindraceo-clavulatis 30 ≃ 7, octosporis; sporidiis oblongo-clavulatis 7 ≃ 3, infra medium 1-septatis, chlorinis.

Hab. in foliis Geranii dissecti nondum prorsus emortuis in Britannia et in Gallia. — Habitus fere *Stigmateæ Geranii.*

24. **Venturia circinans** (Fr.) Sacc. Mich. I, p. 499. F. it. t. 639. *Pe-* 2311
risporium circinans Fr. S. M. III, p. 252. *Stigmatea circinans*

Fr. Summa V. S. p. 421. — Peritheciis hinc inde (matrice subimmutata) maculiformiter aggregatis, vix circinantibus setulis cuspidatis, basi incrassatis, 30 ≃ 7–8 (in basi) circa ostiolum conspersis; ascis cylindraceis, 40–50 ≃ 9–11, aparaphysatis, subsessilibus, 8-sporis; sporidiis didymis, 9–10 ≃ 6, loculo infero multo minore, subhyalinis.

Hab. in pag. sup. foliorum languidorum Geranii rotundifolii et mollis in Gallia, Germania et Italia boreali.

25. **Venturia Cephalariæ** Kalch. et Cooke Grev. IX, 1880, p. 31, tab. 137, f. 36. — Phyllogena, maculis fuscis, orbicularibus; peritheciis globosis, emergentibus, pilis rigidis, erectis, brevibus, fuscis, ornatis; ascis aliis cylindraceis, aliis clavatis; sporidiis uniseriatis, vel biseriatis, ellipticis, irregulariter uniseptatis, pallidis 20–23 ≃ 9–10; cellula superiore magna, cellula inferiore minuta, apiculiformi. 2312

Hab. in foliis Cephalariæ attenuatæ in Africa australi.

26. **Venturia bonariensis** Speg. Fungi Arg. Pug. IV, n. 147. — Peritheciis superficialibus epiphyllis, in maculis expallentibus, suborbicularibus, indeterminatis, majusculis laxissime gregariis, globosis, 80–100 μ. diam., atris, astomis?, membranaceo-coriaceis, contextu subindistincte parenchymatico, atro, setulis rectis, fuligineo-atris, apice pallidioribus, basi non v. vix incrassatulis, 1–3-septulatis, 50–100 ≃ 3–5 laxe vestitis; ascis ellipticis v. obovatis sursum subtruncato-rotundatis, deorsum abrupte ac brevissime stipitato-attenuatis 30–35 ≃ 10–12, octosporis aparaphysatis; sporidiis distichis, ellipticis, medio 1-septato-constrictis, 11–12 ≃ 3,5–4, loculis parum inæqualibus, supero majore, obtusiusculo, infero minore et acutiusculo, 4-guttulatis, hyalinis. 2313

Hab. ad folia radicalia viva Erigerontis bonariensis, Bañado San José de Flores, Argent. Amer. merid.

27. **Venturia Alchemillæ** (Grev.) B. et Br. Grev. IV, p. 68, Sacc. F. it. t. 422. *Stigmatea Alchemillæ* Fr. S. v. Sc. p. 423. *Asteroma Alchemillæ* Grev. Fl. Edin. p. 369. *Chætomium Alchemillæ* Wallr. Comp. n. 1810 *b* (Addit.), *Dothidea ceramioides* Duby Bot. gall. II, 715. *Dothidea Alchemillæ* Fr. Elen. II. 152. — Epiphylla, nigra, maculæ pallidæ insidens; peritheciis prominulis globoso-conicis seriatis in fibrillas a centro radiatim excurrentibus, subconnatis, v. subsparsis, subsuperficialibus, setulis acutis exiguis, 20 ≃ 2, parce vestitis; ascis clavulatis, 35–40 ≃ 8, octosporis; sporidiis di- 2314

stichis, oblongis, 1-septatis, leniter constrictis, minute 4-guttulatis, 8-10 ≃ 3,5-4,5, hyalinis.

Hab. in foliis subvivis Alchemillæ vulgaris in Scotia, Germania, Gallia, Italia, Fennia, Belgio.

28. **Venturia Niesslii** Sacc. *Venturia alpina* Niessl in Hedw. 1881, p. 55 (nec Sacc. 1875). — Peritheciis sparsis liberis globosis submembranaceis atris, setis divergentibus atris instructis, ostiolo punctiformi; ascis oblongis vel obovato-oblongis, stipite brevi 68-80 ≃ 12-15; sporidiis farcte distichis, ovato-oblongis, seu superne late rotundatis, inferne parum attenuatis, rectis, inæqualiter bicellularibus, parte inferiori valde minori 20-22 ≃ 6-8, dilutissime virescentibus; paraphysibus brevibus coalitis. 2315

Hab. in capsulis emortuis exsiccatisque Primulæ integrifoliæ, in passu Albulæ, Graubünden Helvetiæ.

29. **Venturia Potentillæ** (Fr.) Cooke Grev. VI, p. 76, t. 97, fig. 16. Sacc. F. it. it. 348. *Dothidea Potentillæ* Fr. S. M. II, pag. 563. *Stigmatea Potentillæ*, Fr. Summ. Veget., p. 422. Desmaz. 24 Not. 1857, p. 17. — Epi- rarius hypophylla; peritheciis minutissimis, innato-prominulis, globosis, nigris, nitidis, hirtis, nervisequis, seriatis, albofarctis, poro apertis; ascis clavatis, subsessilibus 8sporis 50 ≃ 10; sporidiis, oblongis subpyriformibus, uniseptatis, 12 ≃ 4, dilute flavidis. — Sec. Fuck. *Marsonia Pontentillæ* sistit statum conidicum. 2316

Hab. ad folia viva Potentillæ anserinæ, P. bifurcæ, P. reptantis etc. in Germania, Gallia, Belgio, Britannia, Italia. Sibiria asiatica.

30. **Venturia subtilis** (Fuck.) Sacc. *Stigmatea subtilis* Fuck. Symb. myc. p. 96. — Peritheciis in greges orbiculares usque ad lineam latos, dispositis, aterrimis, setulosis, globoso-conicis, minutissimis; ascis oblongis, octosporis, 42 ≃ 12; sporidiis ovato-oblongis, inæqualiter didymis, flavescentibus, 14 ≃ 6. 2317

Hab. in pag. sup. foliorum Potentillæ cinereæ, quibus maculas cinereas adfert, pr. Budenheim Germaniæ.

C) In Monocotyledoneis et Acotyledoneis.

31. **Venturia graminicola** Wint. Hedw. 1880, p. 165. — Peritheciis sparsis, erumpentibus, e basi globosa brevissime conicis, apice setis rigidis, longis, fusco-atris obsitis, membranaceis 120-130 ≃ 100; ascis e basi ovata oblongatis, sessilibus, 8sporis, 50-70 ≃ 15-17; sporidiis bacillaribus, basin versus uniseptatis et parum attenuatis, 2318

ad septum constrictis, pallide fusco-viridulis, 19–23 ≃ 5–6; paraphysibus filiformibus, pro maxima parte diffluentibus.

Hab. ad folia arida Avenæ Scheuchzeri prope Hospitium Albulæ in Helvetia.

32. **Venturia exosporioides** (Desm.) Sacc. in Rel. myc. Lib. II. n. 188. 2319
Sphæria exosporioides Desm. Nouv. Not. 1843, p. 39. — Hypophyllarius epiphylla; peritheciis minutissimis, superficialibus, sparsis vel gregariis; humectis subglobosis, siccis pezizoideo-collapsis, atris; setulis concoloribus continuis basi incrassatis, 90–100 ≃ 5, rigido-divergentibus obsitis; ostiolis papillatis exilissimis; ascis subfusiformibus; sporidiis fusoideo-oblongis, rectis vel subcurvatis, 1-septatis, non constrictis, 10–11 ≃ 2–2,3, hyalinis.

Hab. in foliis exsiccatis Cariciis pendulæ etc. in Gallia et Germania. — *V. Chætomium* Corda, quacum Cooke jungit *Sphæriam exosporioidem* Desm., est species acicola diversa, quæ sub nomine *Niessliæ Chætomii* describitur in Rabh. et Gonn. Myc. Eur. p. 30, t. XI, fig. 152 (*Acanthostigma*). (Cfr. Syll. nostra n. 2306). Diversa quoque videtur *Trichosphæria exosporioides* Fuck. (Cfr. Syll. nostra n. 1748).

33. **Venturia Eres** (B. et Br.) Ces. et De Not. Schema p. 51. *Sphæria Eres* B. et Br. Ann. N. H. n. 621, t. IX, fig. 4. — Peritheciis sparsis, superficialibus, globosis, setulis longis rigidis radiantibus articulatis rufescentibus vestitis; ascis brevibus, clavatis; sporidiis biseriatis, oblongo-ellipticis, latitudine quadruplo longioribus, uniseptatis, hyalinis. 2320

Hab. in foliis emortuis Caricum in Britannia.

34. **Venturia bryophila** (Fuck.) Sacc. Mich. II, p. 315. *Stigmatea* (Coleroa) *bryophila* Fuck. Symb. myc. App. II, p. 19 (nec *Sph. bryophila* Desm.). — Peritheciis globulosis, superficialibus, 120–130 μ. diam., contextu parenchymatico, fusco, setulis filiformibus, basi leniter incrassatis 20–30 ≃ 2, fuligineis laxe vestitis; ostiolo inconspicuo; ascis clavatis, apice tunica integra rotundatis, brevissime stipitatis, 50–55 ≃ 15, octosporis, aparaphysatis; sporidiis distichis vel subtristichis ellipsoideo-oblongis, 15 ≃ $6^1/_2$–$7^1/_2$, 2-guttatis, denique 1-septatis, non constrictis hyalinis. — Sec. Fuck. l. c. in peritheciis juvenilibus adsunt spermatiæ cylindracea, recta, 6–8 ≃ 2, hyalina. 2321

Hab. in foliis emortuis Jungermanniæ, Polytrichorum, Diphyscii in Germania et Gallia. — Exemplaria ascigera a Fuck.

descripta videntur non prorsus matura. *Sphæria bryophila* Desm. est mihi *Nectria*.

D) *Venturiola*: sporidiis continuis (an tandem 1-septatis?) *).

35. **Venturia integra** Cooke Handb. n. 2783. — Peritheciis sparsis, superficialibus, minutis, obscure fuscis, setis flexuosis, longis vestitis; ascis anguste clavatis; sporidiis biseriatis, ellipticis, continuis, intus granulosis, subhyalinis, 9–10 μ. longis. 2322

Hab. in foliis Coryli Avellanæ, Shere Britanniæ (Capron).

36. **Venturia trichella** Quel. Champ. Jura 518, t. IV, fig, 28 (sub *Lasiella*). — Peritheciis sphæricis, astomis, microscopicis, fulvis dein nigris, setulis brevibus, rigidis divergentibus hispidulis; ascis lanceolatis, stipitatis; sporidiis lanceolatis, 8 μ. long., triguttulatis, hyalinis. 2323

Hab. in pag. infer. foliorum Ilicis Aquifolii in Vogesis et Jura Galliæ.

37. **Venturia Kalmiæ** Peck, 28 Rep. on the St. Mus. New York, t. 2, f. 69. — Peritheciis minutis prominulis, centro maculæ brunnæ aggregatis v. secus nervos subseriatis, nigris, setulis rigidis, rectis divergentibus hispidulis; ascis subcylindricis, 35 μ. long.; sporidiis oblongis v. subfusoideis, minute nucleatis, 8,5–9 μ. longis. 2324

Hab. in pag. sup. foliorum viventium Kalmiæ glaucæ, Kasoag, Amer. bor. — Folia fungillo affecta ad plantæ partem inferiorem spectant et hinc vetustiora.

38. **Venturia montellica** Sacc. Fungi Ven. Ser. IV, p. 3 et F. it. t. 353. — Peritheciis sparsis, præcipue juxta foliorum nervos, e globoso-depressis, 130–160 μ. diam., erumpenti-superficialibus, atris, setulis 1-cellularibus, basi incrassatis, rigidulis, subopacis, præcipue circa ostiolum papillatum obsitis; perithecii contextu e cellulis minutis subvermicularibus conflato, atro-fuligineo; ascis cylindraceis, fasciculatis, subsessilibus, 35 ≃ 4–5, aparaphysatis, 8sporis; sporidiis distichis v. oblique monostichis, oblongo-fusoideis, utrinque obtusiusculis, 7–8 ≃ 3, (immaturis?) hyalinis, 4-guttulatis. 2325

Hab. in foliis Carlinæ vulgaris putrescentibus in sylva Montello Italiæ borealis.

E) *Species incertæ.*

39. **Venturia riparia** Sacc. Mich. I. p. 382. — Peritheciis superficia- 2326

*) An *Trichosphæria tarda* Fuck. huc ducenda?

libus, globosis, aterrimis $^1/_{10}$-$^1/_8$ mill. diam., subastomis, setulis 40–60 ≃ 3–4, fuligineis laxe vestitis; contextu subcarbonaceo, atro; ascis.....

Hab. in caulibus emortuis Equiseti hyemalis, Conegliano Italiæ borealis (Spegazzini).

40. **Venturia alpina** Sacc. Fungi Ven. Ser. IV, p. 3, F. it. t. 353. — 2327 Peritheciis subhemisphæricis, tenuissimis, 50 μ. diam., erumpenti-superficialibus, atris, setis robustis divergentibus, 1-cellularibus, 50–60 ≃ $2^1/_2$, sursum attenuatis, opace fuligineis, crebrius circa ostiolum minutissime papillatum vestitis; contexto perithecii minute sed distincte parenchymatico dilute fuligineo, monostromatico; hyphis parcis simplicibus basi fultis; ascis fasciculatis, clavulatis, 30 ≃ 6, deorsum attenuatis, aparaphysatis; sporidiis guttulatis, hyalinis.... prorsus immaturis visis.

Hab. in foliis Arctostaphyli alpinæ in alpibus Cadore, Belluno Ital. bor. socio *Asteromate alpino* Sacc., et *Phacidii* specie imperfecta, (S. Venzo).

ERIOSPHÆRIA Sacc. Consp. Gen. Pyrenom. ital. n. 52, pag. 10. — (Etym. ab *erion*, lana, ob perithecia vestita). — Perithecia superficialia v. subsuperficialia, carbonacea, hispida v. setulosa. Asci 4–8-spori, paraphysati v. pseudoparaphysati, cylindracei. Sporidia ellipsoidea v. subfusoidea, 1-septata, hyalina v. subhyalina. — Fungilli lignicolæ, rarius corticicolæ, *Trichosphæriæ* analogi. Forte *Lasiosphæria canescens* (Pers.) huc quoque referri posset.

1. **Eriosphæria Vermicularia** (Nees) Sacc. Consp. gen. Pyr. pag. 10, 2328 *Trichosphæria Vermicularia* (Nees) Fuck. Symb. myc. p. 145. *Sphæria Vermicularia* Nees Syst. p. 311, fig. 347, Fr. S. M. II, p. 451. — Atra, minima; peritheciis confertis, ovatis subdepressis, astomis, undique setis erectis nigris tectis; ascis oblongis, stipitatis, 8sporis, 56 ≃ 7; sporidiis distichis, ovato-oblongis, didymis, hyalinis, 8 ≃ 3.

Hab. ad lignum putre Pini in Germania et Carolina infer. Americæ borealis.

2. **Eriosphæria exigua** Sacc. Fungi Ven. S. II, 325, F. it. t. 138. — 2329 Peritheciis superficialibus, globoso-depressis, punctiformibus, 65–75 μ. diam., atris, setulis divergentibus, rigidulis, simplicibus, continuis, obscure fuligineis, 40–70 ≃ 3, undique vestitis, ostiolo impresso minuto; ascis clavato-oblongis, subsessilibus, 40–50 ≃ 8–9, paraphysibus nullis, 8sporis; sporidiis distichis, raro oblique mono-

stichis, fusoideis, 10–13 ≃ 3–4, rectis curvulisve, medio leniter constrictis, 4-guttulatis, v. plasmate bipartito et tenuiter 1-septatis, hyalinis.

Hab. supra epidermidem ramulorum putrescentium Salicis babylonicæ, Selva, Treviso, Italia boreali.

3. **Eriosphæria Andromedæ** (Rehm.) Sacc. *Trichosphæria Andromedæ* Rhem, Ascom. n. 491 et Diagn. n. 491. — Peritheciis minimis, epiphyllis, in superficie folii longe lateque infuscata, in rima nervi solitariis vel gregariis, pilosis, nigrofuscis, parenchymatico-contextis, globosis, pilis sparsis, acutis, brevibus, rigidis, lævibus, simplicibus, fuscis, c. 3–4 μ. crassis, longitudine vix diametrum perithecii superantibus obsessis; ascis sessilibus, pyriformibus, superiore parte incrassatis, 4–8-sporis, 50 ≃ 10; sporidiis elongato-ovatis, bicellularibus, cellulis anisomeris, binucleatis, hyalinis vel subfuscidulis, 2-stichis, 18 ≃ 6; paraphysibus articulatis filiformibus. 2330

Hab. in pagina superiore foliorum languidorum Andromedæ polifoliæ, Haspelmoor prope Augsburg sive Augustam Vindelicorum (Britzelmayr).

4. **Eriosphæria œnotria** Sacc. et Sp. Mich. I, pag. 348, F. it. t. 305. Speg. Ampelomyc. ital. n. 36. — Peritheciis sparsis, globulosis, superficialibus, $^1/_4$–$^1/_5$ mill. diam., obtusiuscule papillatis, pilis rigidulis, septulatis, fuligineis, undique sed laxe vestitis; ascis cylindraceis, apice rotundatis, deorsum crassiuscule breveque stipitatis, paraphysibus filiformibus obvallatis, octosporis 110–125 ≃ 12–15; sporidiis monostichis, v. subdistichis, oblongo-ellipsoideis, 1-septatis, leniter constrictis, e hyalino roseo-fuscidulis, 20–25 ≃ 8–9. 2331

Hab. in cortice emortuo Vitis viniferæ, Conegliano, Ital. bor. ut videtur, rarius. — Nonnullis notis cum gen. *Gibbera* convenit, sed multo propius cum gen. *Eriosphæria.*

5. **Eriosphæria membranacea** (B. et Br.) Sacc. *Sphæria membranacea* B. et Br. in Ann. N. H. n. 1493, t. II, fig. 9. — Semiimmersa; peritheciis amplis membranaceis depresso conicis, pilis brevibus, flexibilibus tectis; ascis cylindricis longe stipitatis, octosporis; sporidiis oblique monostichis breve fusoideis, constricto-1-septatis, 37 ≃ 17–18, hyalinis (?) 2-guttatis. 2332

Hab. in lignis putridis Langridge Britanniæ, socio *Sphæronæmate* ampulliformi, spermatia minuta globosa ferente.

6. **Eriosphæria investans** (Cooke) Sacc. *Sphæria investans* Cooke Handb. n. 2556. — Gregaria v. sparsa, globosa, papillata, fuligineo-nigra, erumpens, peridermiumque excutiens, ab initio subicu- 2333

lo villoso brunneo obducta, denique vertice denudata; sporidiis crasse lanceolatis, uniseptatis, biconico-constrictis, uniseptatis, strato mucoso obductis, 4-guttatis, hyalinis, 20–23 μ. longis.

Hab. in ramis emortuis, Shere Britanniæ (Capron).

7. **Eriosphæria imitatrix** (B. et Br.) Sacc. *Sphæria* (Byssisedæ) *imitatrix* B. et Br. Fungi of Ceylon. n. 1086. — Late effusa, e strato nigro oriunda; peritheciis minutis collapsis, asperulis; sporidiis uniseptatis oblongo-cymbiformibus, 15 μ. longis. 2334

Hab. in Central province pr. Ceylon in truncis.

8. **Eriosphæria alligata** (Fr.) Sacc. *Sphæria alligata* Fr. S. M. II, p. 445, Curr. Simpl. Sphær. n. 225, fig. 10. — Peritheciis sparsis depressis, lævibus, nigris, collapsis umbilicatis, villo laxo pallide fusco cinctis; ascis cylindricis, breve stipitatis, octosporis; sporidiis monostichis, oblongis, utrinque obtusiusculis, constricto-1-septatis, 17-18 = 6, binucleatis, luteolis. 2335

Hab. in corticibus ramorum dejectis in Suecia. — Omnino superficialis, villo tenui laxe contexto subeffuso, passim in subiculum tomentosum confluente, adhærens. Perithecia e villo emergunt v. juniora ab eodem obvolvuntur; dein parte superiore saltim denudata, glabra, lævia, collabascendo umbilicato-concava; evacuata intus alba. Ostiolum minimum, papillatum, papilla mox decidua.

9. **Eriosphæria horridula** (Wall.) Sacc. *Sphæria horridula* Wallr. Comp. p. 796, Mont. Pl. Cell. Cent. VIII. p. 59. — Peritheciis minutis, confertis, nigris, tenuissime rugulosis, superficialibus, subglobosis, vertice convexo sphærico-papillatis, extus pilis sparsis brevibus pellucidis, parce vestitis, dein collabascentibus, depresso-umbilicatis; ascis clavatis, curvulis, octosporis, 60 = 10; sporidiis uniseriatis imbricatis, diblastis, hyalinis, 12–13 μ. longis. 2336

Hab. ad truncos decorticatos P y r i in Germania, rarius.

10. **Eriosphæria nigrita** (B. et Br.) Sacc. *Sphæria* (byssisedæ) *nigrita* B. et Br. Fungi of Ceyl. n. 1091. — Mycelio acanthimorpho; peritheciis minute hispidulis; ascis linearibus; sporidiis ellipticis, submetulæformibus, uniseptatis, utrinque hyalinis 12–13 μ. longis. 2337

Hab. in ligno putri, Habgalla, Ceyllon. — Mycelium fere *Trichosphæriæ acanthostromæ*. Si sporidia medio fuscidula, tunc species a genere removenda.

GIBBERA Fr. Summ. Veg. Scand. p. 402 ex p. (Etym. a *gibbere*, ob perithecia superficie sæpe inæqualia). — Perithecia cæspitosa, stro-

mate superficiali-innato, crasso, dematiaceo, conidiophoro instrata, setis obsessa, carbonacea, fragilia, obsolete papillata. Asci cylindracei, octospori. Sporidia monosticha, oblongato-ellipsoidea, uniseptata, dilutissime flava. Paraphyses coalescentes.

1. **Gibbera Vaccinii** (Sow.) Fr. Summ. Veg. Scand. p. 412, De Not. Sf. ital. t. 93, *Sphæria Vaccinii* Sow. Engl. F. t. 273, fig. 1. — Perithecii stromate atro coacervatim instratis, sphæroideis, deorsum leviter attenuatis, setis rigidis, acutatis, simplicibus, inarticulatis, brevibus, 60–70 ≃ 6–7, aterrimis tota superficie obsessis, obsolete papillatis, atris 0,3 mill. lat.; ascis cylindraceis, breve pedicellatis, octosporis, 90 ≃ 8–9; sporidiis oblique monostichis, oblongo-ellipsoideis, uniseptatis, ad septum non vel leviter constrictis, hyalinis vel dilutissime olivaceis, 15–18 ≃ 7–8. — Status conidicus sistit *Helminthosporium Vaccinii* Fr. 2338

   Hab. in ramulis subvivis Vaccinii Vitis-idææ in Britannia, Suecia, Fennia, Germania, Gallia, Italia et Belgio. — In ramulis jam emortuis tantum fructificat. Perithecia in cæspites minores, subrotundos, sæpe irregulariter confluentes coacervata, subinde annuli lati ad instar ramos ambientia.

2. **Gibbera borneensis** Ces. Myc. Born. p. 21, tab. IV. — Peritheciis aggregatis, ovatis, vertice obtuso, ostiolo nullo (hinc ab *Amphisphæria* recedens), atris, rudibus, tuberculatis, pilosis, demum calvescentibus, carbonaceis; ascis numerosissimis, capillaceo-paraphysatis, 100 μ. long., subclavatis, in pedicellum æquilongum, capillarem, strictum sed flexilem, excurrentibus; sporidiis linearibus, utrinque acutis, uniseptatis, ad septum obiter constrictis, fuscellis. 2339

   Hab. ad lignum vetustate consumptum, Sarawak, Borneo (Beccari).

MYRMÆCIUM Nits. et Fuck. reform., Sacc. Mich. II, p. 138, Fungi Car. fig. II. (Etym. a *myrmœcia*, verrucæ, calli, ob stromatis formam). — Perithecia botryose aggregata, erumpenti-superficialia, glabra, intus alba, stromate depresso-pulvinato, intus albido, molliusculo inserta. Asci cylindracei, paraphysati, octospori. Sporidia ovoideo-oblonga, 1-septata, hyalina. — *Myrmœcii* species primitivas ad *Valsariam* reduxi.

1. **Myrmæcium endoleucum** Sacc. ll. cc. — Acervulis gregariis pulvinatis, subsuperficialibus, depresso-pulvinatis, ¼–⅓ mill. diam., extus nigerrimis, nucleis vero stromateque albis, peritheciis in stromate leviter infossis, globulosis, obtusis, tuberculoso-prominulis, 2340

contextu parenchymatico fuligineo; ascis cylindricis, brevissime stipitatis, apice rotundatis, 90 ≃ 5-6, paraphysibus grumoso-deliquescentibus cinctis, octosporis; sporidiis monostichis, ovoideo-oblongis, 10-13 ≃ 5-6, (spurie?) 1-septatis, 2-nucleatis, haud constrictis, hyalinis.

Hab. in ramis corticatis, Texas, Corpus Christi (RAVENEL). — Habitus fere *Botryosphæriæ*, sed characteres potius *Valsariæ*, a qua præcipue sporidiis hyalinis differt.

2. **Myrmæcium? insidens** (Schw.) Sacc. *Sphæria insidens* Schw. Carol. n. 222 Fr. S. M. II, p. 422. *Melogramma insidens* (Schw.) Berk. N. Am. Fungi p. 169. — Effusa, stromate subrotundo innato fusco-nigro, peritheciis emergentibus, confertis, ovatis, flexuosis, subpapillatis; sporidiis monostichis v. distichis, oblongis, uniseptatis, 7-8 μ. long. 2341

Hab. in lignis et corticibus in Carolina Amer. bor. — Stroma innatum, ex habitu superficiale, sed revera matrici basi immersum et subcircumscriptum, difforme, opacum, ex parte sterile. Perithecia plus minus emersa, difformia, farcta, ad dimidiam magnitudinem seminis Papaveris accedentia.

ENDOTHIA Fr. Summa Veg. Scand. p. 385 (Etym. ab *endothen* intrinsecus, ob perithecia immersa). — Stroma innato-erumpens, verruciforme, amœne crocatum, subcoriaceum. Perithecia immersa, nigricantia, submonosticha, longicollia. Asci fusoidei, aparaphysati, octospori. Sporidia breve fusiformia, hyalina, (spurie?) 1-septata. Spermogonia nota. — Fungillus colore stromatis fere *Tuberculariæ* mox dignoscendus.

1. **Endothia gyrosa** (Schw.) Fuck. Symb. myc. n. 226, Sacc. Myc. Ven. Spec. p. 146, t. XIV, f. 63-65, *Sphæria gyrosa* Schw. Syn. Car. n. 25, Fr. S. M. II, 419, *Endothia radicalis* Fr. Summa Veg. Scand. p. 385, De Not. Sfer. ital. p. 8, f. III. — Subrotunda, confluens, aurantio-miniata, stromate lutescente, peritheciis atris, globosis pulverulentis, demum prominulis; ascis subclavatis, basi substipitato-attenuatis, 35-40 ≃ 7-8, 8-sporis, aparaphysatis; sporidiis recte distichis, breve fusoideis, hyalinis, 1-septatis, non constrictis, 7-9 ≃ 3, raro oblique monostichis. — Perithecia spermogonica in superficie stromatis, subrotunda, sinuosa, medio umbilicata, coccinea; spermatiis minutissimis, oblongis, 3 ≃ 1, hyalinis, paraphysibus (?) filiformibus obvallatis. 2342

Hab. in corticibus et ad ligna Quercus, Carpini, Æscu-

li, Ulmi, Coryli, Castaneæ, Alni, Fagi, Juglandis in Gallia, Germania, Italia, Britannia, Amer. bor., Ceylon et Nova Zelandia. — Stroma lutescens, subpulveraceum, cortici interiori immersum, determinatum, sed non circumscriptum; per peridermium erumpit; tubercula inæqualia hemisphærica, raro lineam excedentias, ostiolis numerosis, conico-elongatis fragilibus spinulosa. Perithecia minuta, atra, globosa, immersa; etiam per ostiolum spinulosum ductulo nigro continuata. Sporidia non vere sed spurie 1-sepata visa, ob plasma bipartitum. — Var. *rostellata:* ostiolis cylindaceis, elongatis, tortuosis, amœne crocatis summoque vertice nigris. In Quercu Italiæ borealis.

MELANCONIS Tul. Sel. Fung. Carp. II, p. 115 pr. p. (Etym. *melas*, niger et *conis*, pulvis, ob conidiorum naturam). — Stromata coconoideo-depressa, excepto disco, peridermio tecta. Perithecia corticis parenchymati vulgo immutato immersa, circinantia, ostiolis in discum plus minus exsertis. Asci cylindracei vel elongato-clavati, paraphysati, typice octospori. Sporidia monosticha vel disticha, ellipsoidea vel oblongata, uniseptata, hyalina, majuscula, interdum appendiculata. — Stromata conidifera conoidea, tecta, *Melanconia* referentia. Conidia subconglutinata, continua, ellipsoidea, olivaceo-fusca, stipitata. — Species phœodidymas ad *Melanconiellam*, species phragmosporas ad *Pseudovalsam* duxi.

I. *Eumelanconis:* sporidiis muticis.

1. **Melanconis stilbostoma** (Fr.) Tul. Sel. Fung. Carp. II, pag. 119, t. 14, f. 1–12, *Sphœria stilbostoma* Fr. S. M. II, pag. 403 p. p., *Valsa stilbostoma* Fr. Summa Veg. Scand. p. 412. — Stromatibus e basi orbiculari late conoideo-truncatis, depressis, plus minus protuberantibus, pustulatis, salvo disco, peridermio adhærente, integro tectis; peritheciis in singulo stromate 3–12, corticis-parenchymate haud mutato insculptis, circinantibus, subsphæroideis, in collum adscendens tenuissimum attenuatis; ostiolis incrassatis, sphæroideis vel demum elongatis, lævibus, nitidis in disco peridermium nonnihil superante cinereo-albido, 0,7 mill. lato sparsim erumpentibus eundemque tandem obliterantibus; ascis oblongo-subcylindraceis, 90–100 ≃ 12–14; sporidiis octonis, rarius senis, subdistichis, ellipsoideis vel suboblongatis, uniseptatis, medio constrictis, hyalinis, 18–25 ≃ 8–11. — St. conidicus sistit *Melanconium bicolor* Nees. St. sperm. (?) sistit *Libertellam betulinam* Desm. 2343

Hab. in ramis emortuis Betulæ albæ, B. populifoliæ in Germania, Suecia, Fennia, Belgio, Britannia, Italia, Amer. bor.

2. **Melanconis modonia** Tul. Carp. II, p. 141, *Valsa biconica* Comp. Sph. f. 142, Curr., teste Cooke. — Peritheciis globosis vel depressis, paucis circinantibus, peridermio pustulato nidulantibus; ostiolis erumpentibus, breviusculis; ascis paraphysatis, apice crasse tunicatis, octosporis, 130–160 ≃ 12–18; sporidiis distichis, ellipticis, utrinque obtusis, medio 1-septato-constrictis, crassiuscule tunicatis, primo granuloso-farctis, dein 1-2-guttulatis, hyalinis vel hyalino-chlorinis, 24–30 ≃ 10. — Status conidicus (*Steganosporium Castaneæ* Lib.) et spermogonicus adsunt. Cfr. Fuck. Symb. myc. p. 190. 2344

Hab. in ramis corticatis emortuis Castaneæ vescæ in Gallia, Germania, Britannia et Italia.

3. **Melanconis Carthusiana** Tul. Carp. II, p. 129. — Peritheciis nigris, copiosis, in interiore stromatis conidici stipate nidulantibus, globulosis; collis discretis cylindricis, apice non incrassato poro hiantibus, epidermidem perforantibus parumque excedentibus; ascis cylindraceis, octosporis, 120 ≃ 10–13; sporidiis monostichis, ovato-lanceolatis, uniseptatis, ad septum constrictis, 20–25 ≃ 10, hyalinis. — St. conidicus sistit *Melanconium juglandinum* Kunze. 2345

Hab. in ramis corticatis Juglandis regiæ in Gallia, Germania et Italia. — Stroma intus flavicans.

4. **Melanconis fennica** Karst. Myc. Fenn. II, p. 75. — Stromate valseo, sphæroideo-applanato, cortici immerso, ligno sæpe basi innato vel adnato, corticis vel ligni substantia immutata vel flavo-colorata formato, peridermio tecto, 1 mill. latit. vel paullo ultra; peritheciis in singulo stromate 1–12, sphæroideis mutuaque pressione subinde angulatis, subcircinantibus, majusculis, atris, 0,3 mill. lat., collis brevissimis, convergentibus; ostiolis nunc abbreviatis, exiguis, nunc plus minus elongatis, in discum minutum, 0,5 mill. lat., atrum, per peridermium perforatum erumpentem, deinde obliteratum, nunc, omnino nunc basi tantum connatis; ascis cylindraceis, 145–165 ≃ 20 p. sp., octosporis; sporidiis monostichis, ellipsoideis, apice rotundatis, uniseptatis, medio constrictis, massa grumosa repletis, dein loculo utroque uniguttulato, hyalinis, 22–35 ≃ 13–17; paraphysibus filiformibus, guttulatis. 2346

Hab. in ramis emortuis Sorbi fennicæ, Mustiala Fenniæ.

5. **Melanconis? asteropycnis** (Crouan) Sacc., *Cucurbitaria asteropycnidia* Crouan Finist. p. 31. — Peritheciis nigris, convexis, peridermio tectis, 3-4-aggregatis, dein erumpentibus; ascis clavatis, 2347

crassis, octosporis; sporidiis oblongis, uniseptatis, 4-guttulatis; paraphysibus filiformibus. — Sec. Crouan l. c. st. pycnidicus sistit *Asterosporium Hoffmanni* Kunze.

Hab. in ramulis emortuis Fagi, Finistère Galliæ.

6. **Melanconis dolosa** (Fr.) Sacc., *Sphæria dolosa* Fr. S. M. II, p. 405, *Valsaria dolosa* (Fr.) De Not. Sfer. ital. 57, t. 54, *A. B.* (var. *Massaræ*). — Peritheciis aggregatis vel subcircinantibus depresso-globosis, tectis, disco mere corticali suberumpente; collis convergentibus; ostiolis exsertis, convexis, stipatis, obliterato; ascis elongatis, octosporis, aparaphysatis; sporidiis oblongis utrinque obtusis, uniseptatis, lenissime tandem constrictis, hyalinis, 25 ≃ 8. 2348

Hab. in ramis siccis Salicis et Alni in Germania et Italia. — Sec. De Not. adest socium *Melanconium* conidiis ovoideis, 10 μ. long. binucleatis, fuligineis. — Pustulæ irregulares, epidermide rimose vel stellatim fissa parum prominent, sed discus intra rimas fere occultatus, ubique tectus ostiolis convexis lævibus nitidis pusillis. Verticaliter vero dissectus discus facile patet. Perithecia irregulariter circinantia, immersa, depresso-globosa, collis brevibus angustatis convergentibus. A *Mel. Alni* potissimum sporidiis muticis differre videtur. — Var. *Massaræ* De Not. Sfer. ital. p. 57, fig. 54 *B.* A typo differt peritheciis copiosioribus, collis longioribus. In ramis crassioribus Alni in Ital. bor.

II. *Melanconidium:* sporidiis appendiculatis.

7. **Melanconis Alni** Tul. in Ann. Sc. nat. Ser. 4, t. 5 (1865), p. 109, Sacc. Fungi ital. del. t. 452, Oodem Mat. Néerl. II, 29, tab. IV, fig. 4. — Stromate valseo, disco excepto, peridermio tecto, substantia corticis fere immutata formato, parte centrali interna suberea, albida vel flavida in discum concolorem erumpentem, plus minus protuberantem protracta; peritheciis in singulo stromate 1–9, cortici immutato immersis, circinantibus, sphæroideis, atris; ostiolis in discum exsertis, conoideis, acutis vel obtusiusculis, rigidis, nigris; ascis vix pedicellatis, elongato-clavatis, 75–90 ≃ 12–18, octosporis, paraphysatis; sporidiis distichis, oblongis vel ovoideo-oblongis, rectis vel curvulis, uniseptatis, ad septum levissime constrictis, chlorino-hyalinis, 18–24 ≃ 5–7, utroque apice setula seu appendicula exili, 3–6 ≃ 4–5, hyalina, tandem decidua ornatis. — Status conidicus sistis *Melanconium sphæroideum* Link. 2349

Hab. in ramis corticatis Alni glutinosæ in Britannia, Germania, Italia, Fennia, Hollandia.

8. **Melanconis thelebola** (Fr.) Sacc. Reliq. myc. Lib. II, n. 138, *Diaporthe thelebola* (Fr.) Sacc. Myc. Ven. n. 224, *Sphæria thelebola* Fr. S. M. II, p. 408, *Aglaospora thelebola* Tul. Carp. II, 166. — Circinata, pustulata; peritheciis globosis decumbentibus, ostiolis exsertis subglobosis confertis lævibus, primo papillatis; ascis oblongo-fusoideis 110–120 ≃ 20, octosporis; sporidiis distichis cylindraceis curvis, 1-septatis, vix constrictis, 45–50 ≃ 8, subhyalinis, initio utrinque setigeris. — Status conidicus, sistit *Stilbosporam thelebolam* Sacc. Status spermogonicus, teste Tul., sistit *Cytisporæ* formam. 2350

Hab. in cortice Alni glutinosæ etc. in Italia bor., Helvetia, Gallia, Germania, Britannia et America boreali. — Perithecia subsena, conferta, valde decumbentia, collis convergentibus subjunctis. Ostiola valde prominentia, incrassata, perithecia minuta referentia, inæqualia, primo papillata, dein umbilicata nitida, rigida, unde rami, quibus innascitur, ad tactum asperi.

9. **Melanconis occulta** (Fuck.) Sacc. *Calospora occulta* Fuck. Symb. myc. p. 190, t. IV, fig. 25. — Peritheciis subcorticalibus, 4–10 in greges orbiculares oblongosve dispositis, oblique stipatis, antice subconnatis, e maximis, ovatis, in collum breve attenuatis, nigris; ostiolis lato-connicis, majusculis, aterrimis, demum per epidermidem longitudinaliter fissam prominulis, nucleo albo; ascis oblongo-ovatis, in stipitem brevem, crassum attenuatis, 8sporis, 144 ≃ 68; sporidiis conglomeratis, oblongis, quandoque curvatis, uniseptatis, ad septum constrictis, loculis 1–2guttulatis etiam multigranulosis, hyalinis vel dilutissime flavescentibus, utrinque appendiculis latis, sporidium dimidium æquantibus, subtilissimis, vix conspicuis (sed extantibus!) primo sporidio ipso adpressis, demum patentibus; sporidiis sine appendiculis, 44–58 ≃ 14–16. — Status spermogonicus *Cytisporam* sistit, teste Fuck. l. c. 2351

Hab. in ramis emortuis Populi tremulæ prope Œstrich Rhenogoviæ, raro.

HERCOSPORA Tul. Carp. II, p. 154, nec Fries. (Etym. ab *hercos*, septum, ob sporidia 1-septata). — Perithecia stromate corticali conico-truncato immersa, discumque erumpentem crassum penetrantia. Asci paraphysati octospori. Sporidia bilocularia, hyalina. — Status pycnidicus *Rabenhorstiam* sistit; st. conidicus *Exosporium;* st. spermogonicus fere cytisporoideus.

1. **Hercospora Tiliæ** (Fr.) Tul. Sel. Fung. Carp. II, p. 154, t. XVIII 2352

et XIX, fig. 1-14, *Sphœria Tiliœ* Pers. Syn. p. 84, *Sph. ampullacea* Pers. p. 41, Quel. Champ. Jura p. 500, *Valsaria Tiliœ* De Not. Sfer. ital. p. 58, t. 55, *Valsa tilaginea* Curr. Phil. Trans. 1857, p. 546. — Perithecüs cortice profundo immersis in acervulos subconicos congregatis, subcircinantibus, majusculis subampulliformibus, ostiolis convergentibus, obtusis, disco stromatico crasso virescente subcirculari coronatis; ascis longe cylindraceis, obtusissimis, deorsum breviter attenuatis octosporis; sporidiis monostichis, ellipsoideis, rectis, muticis, utrinque obtusis, medio uniseptatis et nonnihil angustatis, 16-22 ≃ 10. Pycnidium (*Rabenhorstia Tiliœ* Fr.); stylosporæ hyalinæ ellipsoideæ, utrinque obtusissimæ, rectæ, leves, simplices, hyalinæ, 11-13 ≃ 6; spermogonia rarissima, discreta, pycnidiis subconformia sed longe minora; spermatia exiliter linearia, recta, et brevissima. — Status conidicus sistere dicitur *Exosporium Tiliœ* Link.

Hab. in ramis corticatis Tiliæ in Suecia, Belgio, Britannia, Gallia, Italia, Germania, Fennia.

DIAPORTHE Nits. Pyr. Germ. p. 240 (Etym. a *diaportheo*, everto, quia matricem vastat). — Stromata corticola subvalsea discreta (*Chorostàte*) vel effusa, indeterminata e cortice parum mutato formata, sed solite linea atra circumscripto (*Tetràstaga*) vel pariter effusa sed e ligno superficie denique denigrato, intusque sæpius linea nigra circumscripto formata (*Euporthe*). Perithecia membranacea vel subcoriacea, intus sæpe cinerascentia, in ostiolum sæpissime filiforme rarius breve producta. Asci typice aparaphysati, fusoidei, octospori. Sporidia fusoidea vel subellipsoidea, 1-septata [1]), plerumque medio constricta et 4-guttata, hyalina, mutica v. appendiculata — Status spermogonicus sistit *Phomœ* species: peritheciis sæpius subirregularibus intusque griseis, spermatiis 2-guttatis, basidiis filiformibus plerumque tandem aduncis suffultis [2]).

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1) Auctores plures e. g. Nitschke, Fuckel etc. *Diaporthis* sporidiis septa typice terna tribuunt, quod mihi revera rarissime contingere videtur. In plerisque speciebus profecto sporidia præter septum medium normale monstrant in quoque loculo septum alterum, quod vero spurium habendum est, nam nulla plerumque adsit constrictio in mediis loculis; fictio hæc e divisione plasmatis oritur, fitque magis manifesta si sporidia vel Hydrate Kalico vel Ammoniaco indeque Chloro-joduro Zynchi tractentur.

2) *Diaporthes* generis species jam numerosissimæ et in diem novis inventis continuo crescentes epicrisi nova et comparata maxime egent, qua

I. *Chorostàte* (*Chorostate* et *Sclerostroma* Nits.); peritheciis in acervulos valseos vel subvalseos aggregatis. (Etym. a *choros*, chorus, ob dispositionem peritheciorum). — Aptius forte ut genus proprium sumendum.

A) Euchorostate: sporidiis muticis.

1. **D. Chorostate conjuncta** (Nees) Fuck. Symb. myc. p. 206, *Sphæria conjuncta* Nees Syst. p. 305. fig. 337. — Circinata; peritheciis globosis confertis; collibus brevibus; ostiolis in discum tuberculosum nitidum junctis, cylindraceis elongatis apice incrassato-capitatis; ascis fusoideis, sessilibus, 70–75 ≃ 9, 8sporis; sporidiis fusoideis, 18–20 ≃ 4, hyalinis, tandem constricto-1-septatis, 4-guttulatis vel granulosis. 2353

Hab. in ramis emortuis Coryli Avellanæ in Suecia, Germania, Belgio et Italia. — Pulchra. Perithecia 3–9 in circulos subregulares stipata, leviter decumbentia, juniora materia crustacea albida fugaci evidentius obducta, quam plurimæ aliæ. Discus erumpens, orbicularis, punctiformis, omnino homogeneus h. e. ex solis ostiolis conjunctis formatus.

2. **D. Chorostate Kunzeana** Sacc. F. Ven. Ser. V, p. 181, *D. Carpini* Sacc. M. V. n. 665, Myc. Spec. p. 137, t. XIII, f. 44–46, nec auct. — Peritheciis stromate valseo corticali exceptis, hinc inde monostiche aggregatis, sub epidermide sæpius nigrificata tumidulaque nidulantibus, compressis, olivaceis, ostiolis in centrum subhorizontaliter convergentibus ibique disculum atrum minutum nonnihil elevatum, epidermideque cinctum efformantibus, apice rotundatis; ascis fusoideis, 70–80 ≃ 10, sessilibus, aparaphysatis, 8sporis; sporidiis distichis, biconico-fusoideis, utrinque obtuse sed conspicue attenuatis, 16–19 ≃ $3^1/_2$–4, rectis curvulisve, medio leniter constrictis, 1-septatis, 4-guttulatis, hyalinis. — Spermogoniis subcuticularibus, conoideo-depressis, medio pertusis, e fusione cellularum quasi 1-locularibus, pulpa lutescenti fœtis, spermatia oblongo-fusoidea, recta curvulave, 10–11 ≃ 3, 4-guttulata (tandem 1-septata?), sterigmatibus brevissimis fasciculatis fulta fóventibus. 2354

Hab. in ramulis Carpini Betuli, Selva, Treviso, Ital. bor. — A *Diap. Carpini* genuina, differt pustulis ostiolisque multo mi-

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peracta, earum numerus facile contrahi poterit. Interea formas distinguendas esse quam confundendas tutius existimavi, ex eo potissimum quod pro certo compertum jam sit species generis plures et prædistinctas, etsi affines, in ipsissima matrice (e. g. Carpino, Quercu etc. etc.) cohabitare!

noribus, præcipue vero sporidiis majoribus biconicis neque subcylindraceis.

3. **D. Chorostate bitorulosa** (Berk. et Br.) Sacc., *Valsa bitorulosa* B. et Br. Ann. N. H. n. 861, t. 10, f. 15, *Cryptospora bitorulosa* (B. et Br.) Niessl Hedw. 1877, p. 119. — Peritheciis brunneis, subpulverulentis; collis decumbentibus, rectis; ostiolis confluentibus ascis clavatis, breve stipitatis, octosporis; sporidiis biconicis, constricto-1-septatis, 4-guttulatis, hyalinis, 17-20 μ. long. 2355

Hab. in ramis corticatis Carpini Betuli in Britannia. — Perithecia in quoque stromate circ. 8; sporidiorum articuli denique ad medium constricti.

4. **D. Chorostate decipiens** Sacc. Fungi Ven. Ser. IV, p. 6. — Acervulis gregariis discoideis, sub epidermide plerumque pustulatim elevata nidulantibus, zona v. macula circulari corticali nigra interdum limitatis, ex peritheciis 5-15 circinantibus efformatis; peritheciis e globoso depressis, $^1/_2$ mill. diam., vivis atrovirentibus, in colla longiuscule subhorizontaliter flexa centroque convergentia attenuatis, ostiolis supra discum subrotundum initio pallide luteolum furfurellum parum exertis, obtuse rotundatis, denique perforatis, atro-nitidulis; ascis oblongo-fusoideis, 90-100 ≃ 14, deorsum attenuatis, sessilibus, aparaphysatis, lumine in apice 2-foveolato, 8sporis; sporidiis oblique monostichis, vel distichis, oblongo-fusoideis, dein constricto-didymis, 24-26 ≃ 5-6$^1/_2$, initio pluriguttulatis, denique 4-6-guttatis, postremo 2-magninucleatis, hyalinis, utrinque primitus obtuse apiculatis, sæpe curvulis, sporidiorum loculis tandem nonnumquam secedentibus. 2356

Hab. in ramis corticatis Carpini Betuli in Italia boreali, Gallia et Germania. — Ab affini *D. sulfurea* Fuck. differt in primis stromate vix v. non lutescente, sporidiis angustioribus et longioribus. Cl. Rehm ducit dubitanter hanc speciem ad *D. carpinicolam* Fuck., cl. Niessl ad *D. bitorulosam* (B. et Br.). Res ulterius inquirenda.

5. **D. Chorostate Carpini** (Pers.) Fuck. Symb. myc. p. 205 (nec Sacc. Specim.), *Valsa Carpini* (Pers.) Fr. Summa Veg. Scand. p. 411, *Sphæria Carpini* Pers. Syn. p. 39. — Innata, stromate corticali pallido; peritheciis circinantibus, numerosis, stipatis, linea tenui arcte circumscriptis; ostiolis epidermide stellatim fissa erumpentibus inter se liberis, confertis primo subpapillatis, demum umbilicatis; (locis vero udis subrostellatis); ascis oblongis, sessilibus, 8-sporis, 42-66 ≃ 7-8; sporidiis subdistichis, oblongo-cylindraceis 2357

utrinque obtusiusculis uniseptatis, 4guttulatis, hyalinis, 13–18 ≃ 3–4; spermongoniis demum erumpentibus, 1–2 mill. lat., poro centrali plerumque irregulariter fisso apertis, intus cellulis globosis, dense stipatis formatis; spermatiis lanceolato-fusiformibus, biguttulatis (uniseptatis?), hyalinis, 12 ≃ 3–4.

Hab. in ramis siccis Carpini Betuli in Suecia, Germania, Gallia, Belgio et Italia.

6. **D. Chorostate mucosa** Wint. herb. (sine diagnosi). — Peritheciis 2358
corticolis, peridermio tectis, hinc inde inordinate valsoideo-aggregatis laxiusculis, decumbentibus, globoso-depressis, ½ mill. latit., ostiolis in disculum minutum vix erumpentem atrum convergentibus, obtusiusculis; ascis subfusoideis 87–100 ≃ 10, octosporis; sporidiis, utrinque obtusiusculis, medio septatis, lenissime constrictis, strato mucoso hyalino crassiusculo obductis, hyalinis, 17–19 ≃ 5–6.

Hab. in ramis corticatis Carpini Betuli, Eisleben Germaniæ (J. Kunze).

7. **D. Chorostate longirostris** (Tul.) Sacc. *Cryptospora Hystrix* Fuck. 2359
Symb. myc. p. 194 (nec Fr.), *Valsa longirostris* Tul. S. F. C. II, p. 200. — Stromatibus subgregariis, depresso-conicis, innato-erumpentibus, e fulvo subcastaneis, ostiolis rostellatis pluribus, 1 mill. long., liberis, subflexuosis; ascis elongato-clavatis, substipitatis, 8-sporis, 48 ≃ 8; sporidiis farctis, lineari-oblongis, subcurvatis, uniseptatis, 4guttulatis, hyalinis, 18–25, 3–3,5, muticis. — Status conidiophorus; pustulis siccis, unicellularibus, sub corticis epidermide nidulantibus, demum erumpentibus, extus intusque sordide albis; conidiis (leucoconidiis Nke., stylosporis Tul.) ut ascosporis, sed perparum angustioribus et plerumque guttulis deficientibus

Hab. in ramis crassioribus corticatis Aceris Pseudoplatani in Gallia et Germania.

8. **D. Chorostate Mamiania** Sacc., *Mamiania Hystrix* De Not. Sfer. 2360
ital. p. 13, t. 50 (nec *Sph. Hystrix* Fr.). — Stromatibus e basi applanata, cortice insidente, subhemisphærico-pulvinatis, epidermide varie perfossa, verrucæformi-emergentibus, crustaceo-corticatis, atris, intus medulla albicante farctis; peritheciis contiguis, perpendicularibus, depresso-orbicularibus, vel conoideo-hemisphæricis, fuscescentibus, basi in sicco collabascentibus, longe rostratis; rostris peritheciorum stromatis cortice perfosso, seorsum spiniformi-emergentibus, atris rectis, varieve curvatis non raro divergentibus, apice perviis; nucleo pallescente; ascis clavatis, 8-sporis; sporidiis oblon-

go-teretibus, lenissime curvulis, utrinque obtusis, hyalinis, guttulis 4 fœtis, verosimiliter senio 2-(4?)-locularibus, 20 μ. longis.

Hab. in ramis emortuis Alni, Moncenisio, Italia bor. (Lisa).

9. **D. Chorostate Niesslii** Sacc. Mich. I, p. 391 nec Kunzei, quæ *Cryptosporella.* — Acervulis gregariis cortice nidulantibus, intus et extus nigris disco subcirculari, ostiolis numerosis parum emergentibus punctulato, epidermide rupta arcte cincto; peritheciis minutis $^1/_3$ mill. diam., monostichis, globulosis, nigris intus et extus collis cylindraceis convergentibus, zona, stromatica nigra per corticem et lignum excurrente, acervulos varie circumscribente; ascis fusoideis, subsessilibus 70–75 ≃ 8–10, lumine apice bifoveolato, octosporis, aparaphysatis; sporidiis distichis v. oblique monostichis, fusoideis, rectis curvulisve, 15 ≃ 3–4, utrinque acutiusculis, 4-guttatis, simulateque 1-(v. raro 3-)septatis, non v. lenissime medio constrictis. 2361

Hab. in cortice ramorum majorum Aceris Pseudoplatani, Feletto Ital. bor. (Spegazzini), in Styria (G. v. Niessl), Malmedy in finibus Galliæ et Germaniæ (Libert.). — A *Diaporthe Hystrice* (Tode?) Sacc. sporidiis muticis, a *D. longirostri* (Tul.) et *D. Mamiania* Sacc. sporidiis brevioribus et crassioribus, ostiolisque curtis et sporidiis utrinque attenuatis nec rotundatis præ ceteris diversa.

10. **D. Chorostate pustulata** (Desm.) Sacc. *Sphæria* (incusa) *pustulata*, Desm. 13 Not. 70, 1846 (non Hoffm, nec Moug, nec Sow.) *Aglaospora pustulata* Tul. Carp. II, p. 163. — Erumpens, pustulata, sparsa, stromate corticali pallido, linea circumscripto; disco nigro subconvexo; peritheciis 4–12 in centro confertis; ostiolis prominulis crassiusculis umbilicatis; nucleo albido dein subnigro; ascis oblongo-cylindraceis, obtusis, octosporis; sporidiis fusiformibus, 4-guttulatis, hyalinis, muticis 16–19 ≃ 3–4. — Teste Tul. adsunt pycnides et spermogonia. 2362

Hab. in ramis exsiccatis Aceris Pseudoplatani in Gallia, Germania et Belgio.

11. **D. Chorostate Aceris** Fuck. Symb. myc. 204. *Valsa Aceris* (Fuck.) Cooke in Grevill. — Acervulis erumpentibus, sparsis minutis, ostiolis parum emergentibus; ascis oblongis, 60 ≃ 8, sporidia 8, disticha, oblonga, parum curvata, utrinque obtusa, uniseptata, hyalina, 14 ≃ 4 includentibus. 2363

Hab. in ramis Aceris campestris etc. in Germania, Britannia et Amer. bor.

12. **D. Chorostate albo-cincta** (Cooke et Peck) Sacc. *Valsa albo-cin-* 2364

cta C. et P. in Vals. Un. St. p. 120 (nec in Rep. on the St. Mus. New York). — Peritheciis in acervulos valseos aggregatis, peridermioque secesso linea alba circumscriptis, perque lignum zona stromatica nigra limitatis; ascis cylindraceis; sporidiis monostichis, ellipticis, uniseptatis leniterque constrictis 18 ≃ 6.

Hab. in ramis Aceris spicati, New York Amer. bor.

13. **D. Chorostate acerina** (Peck.) Sacc. *Valsa acerina* Peck, 28 Rep. on the St. Mus. New York. — Pustulis minutis erumpentibus; peritheciis ligno immersis, crusta stromatica nigricante tectis lineaque nigra cinctis; stiolis prominulis, conico-cylindraceis; sporidiis oblongis v. subellipsoideis, subacutis, 12,5 μ. long. plasmate 2-4-partito. 2365

Hab. in ramis Aceris spicati, Indian Lake, Amer. bor. — « An eadem ac *D. Aceris* Fuck? ».

14. **D. Chorostate subaquila** (B. et C.) Sacc. *Melogramma subaquilum* B. et C. North Amer. Fungi n. 862. — Peritheciis paucis longitudinaliter erumpentibus; ascis clavatis; sporidiis hyalinis constricto-uniseptatis angustis, subinde biconicis, 20-22 μ. long. 2366

Hab. in ramis Aceris striati, Massachusetts Amer. bor. — An e sect. *Tetrastagæ?*

15. **D. Chorostate sphendamnina** (B. et C.) Sacc. *Diatrype sphendamnina* B. et C. Noth Amer. Fungi n. 855. — Pustulis longitudinaliter erumpentibus; ostiolis brevibus cylindricis; ascis clavatis; sporidiis uniseriatis, oblongis, angustis, hyalinis. 2367

Hab. in ramis corticatis Aceris rubri, Pensylvania Americæ borealis (Michener).

16. **D. Chorostate myinda** (C. et E.) Sacc. *Valsa myinda* C. et E. Grev. VI, p. 93. — Tecta, demum epidermide fissa erumpens; peritheciis paucis, atris, convergentibus; ascis clavatis; sporidiis lanceolatis, quadrinucleatis, dein uniseptatis, hyalinis, 15 ≃ 4. 2368

Hab. in cortice Aceris, New Jersey Amer. bor.

17. **D. Chorostate Oudemansii** Sacc. *Cryptospora* et *Valsa Æsculi* Oud. Mat. Myc. Neerl. II, p. 61, t. V, fig. 5. — Habitus *Cryptosporellæ Æsculi* Fuck. (Cfr. Syll. nostra n. 1808); ascis crasse oblongo-fusoideis, breve stipitatis, 40 ≃ 8; sporidiis octonis distichis cylindraceis, curvatis utrinque obtusiusculis, 2-4-guttatis, dein 1-septatis non constrictis, 13 ≃ 3-4, hyalinis. 2369

Hab. in ramis Æsculi Hippocastani prope Amsterdam Hollandiæ. — *Cr. Æsculi* conspicue differt ascis sporidiisque plus quam *duplo* majoribus, sporidiis continuis etc,

18. **D. Chorostate oncostoma** (Dub.) Fuck. Symb. myc. p. 205. Sacc. 2370
Myc. Ven. p. 136, tab. XIII, f. 36-39. *Sphæria oncostoma* Duby in Kl. Herb. myc. II, n. 253. *Valsa oncostoma* Duby in Cooke Handb. n. 2499. — Stromatibus globoso-conicis, innato-erumpentibus, linea atra circumscriptis; peritheciis circinato-monostichis, globulosis; ostiolis elongatis, curvulis, subconvergentibus; ascis oblongo-cylindraceis, sessilibus, 65 ≃ 9, 8sporis; sporidiis distichis, oblongo-fusoideis, 4-guttulatis, hyalinis, tandem constricto-1-septatis, 18 ≃ 4½-5. Spermogonia *Phomam* referentia: spermatiis fusoideis utrinque acutissimis, continuis, 2-guttulatis, hyalinis, 10 ≃ 2.

Hab. in ramis emortuis Robiniæ Pseudacaciæ in Gallia, Italia, Germania, Austria, Britannia. — Perithecia et ostiola satis varia; prima nucleo flavido farcta; in Robiniæ varietatis inermis ramis durioribus paulo majora vidi quam quæ in ramulis junioribus; ostiola sæpe elongata, gracilia, apice incurva, rarius breviora, crassiora; stromata intus flavida.

19. **D. Chorostate personata** (C. et E.) Sacc. *Valsa persónata* C. et 2371
E. Grev. VII, pag. 9. — Pustulis variis, tectis; peritheciis ligno immersis, nigro-cinctis; ascis clavatis; sporidiis lanceolatis, uniseptatis, quadrinucleatis 25-28 ≃ 6.

Hab. in ramis Robiniæ Pseudacaciæ in New Jersey Amer. bor. — «Forte eadem ac *D. oncostoma* (Duby)».

20. **D. Chorostate enteroleuca** (Fr.? Curr.) Sacc. *Valsa enteroleuca* 2372
(Fr.) Curr. Linn. Trans. XXII, t. 47, f. 113. Cooke Handb. n. 2501. *Sph. enteroleuca* Fr. S. M, II, p. 381, p. p. — Orbicularis, convexa, libera; stromate albo linea nigra circumscripto; peritheciis minutis; ostiolis stipatis, discretis, globulosis rostellatis, subrugosis; ascis tereti-clavatis breve stipitatis octosporis; sporidiis distichis, fusoideis, curvulis constricto-1-septatis, 4-nucleatis, 15-17 μ. longis.

Hab. in ramis exsiccatis in Britannia, Suecia, Gallia; in ramis Robiniæ in Carolina Amer. bor. — Forma Robiniæ verisimillime a *D. oncostoma* non differt.

21. **D. Chorostate transversalis** Karst. Myc. Fenn. II, pag. 110. — 2373
Stromatibus valseis, discretis, raro confluentibus, e basi orbiculari, truncato-conoideis, cortice immutato formatis; peritheciis in singulo stromate 5-10, parenchymati insculptis, circinantibus, subovoideis; ostiolis in disco lanciformi, atro, 1-1,5 mill. lato, peridermium arcte adhærens, vulgo pustulato-elevatum perforante, prominulis, sphæroideis, conoideis vel ovoideis, raro elongatis, flexuo-

sis, teretibus, longis, circiter 1 mill.; ascis fusoideo-elongatis, sessilibus, 45 ≃ 6, octosporis; sporidiis distichis, fusoideo-elongatis, vulgo leviter curvulis, 4-guttulatis vel spurie tenuiter 1-(3?)-septatis, chlorino-hyalinis, 12–14 ≃ 2-3.

Hab. in ramis emortuis Betulæ albæ prope oppid. Abo Fenniæ.

22. **D. Chorostate platasca** (Peck) Sacc. *Diatrype platasca* Peck 27 Rep. pag. 109. — Stromate suborbiculari, minuto, erumpente, nigro; ostiolis elongatis, tenuibus, sæpe leniter curvis cylindricis; ascis oblongis v. fusoideis, valde crassis; sporidiis stipatis, hyalinis, oblongis, uniseptatis, quadrinucleatis, 12–15 μ. long. 2374

Hab. in Amer. bor. Adirondack, in ramis emortuis Betulæ.

23. **D. Chorostate aristata** (Fr.) Karst. Myc. Fenn. II, p. 112. *Sphæria aristata* Fr. S. M. II, p. 363. *Diatrype aristata* Fr. Summa V. S. p. 385. — Stromate diatrypeo, immerso, per peridermium laciniatim fissum transversim erumpente, plerumque oblongato convexo vel plano, disco sæpe tuberculoso, atro, opaco, intus albo, demum albido-fuscescente, crassiusculo, latit. circiter 5 mill.; peritheciis in singulo stromate plerumque 12, demersis, mono- vel distichis, subsphæroideis, majusculis; ostiolis exsertis, rostellatis, distantibus, divergentibus, teretibus, æqualibus, lævibus, longis, facile diffractis, atris; ascis sessilibus, fusoideo-elongatis, 48–60 ≃ 11–12, octosporis; sporidiis distichis, fusoideo-elongatis, ut plurimum curvulis, 2–4-guttulatis vel uniseptatis, chlorino-hyalinis, 12–18 ≃ 3–4. 2375

Hab. in ramis exsiccatis Betulæ nanæ in Norvegia, Lapponia et Fennia.

24. **D. Chorostate Strumella** (Fr.) Fuck. Symb. myc. p. 205. *Sphæria Strumella* Fr. S. M. II, p. 365. *Diatrype Strumella* Fr. Summa Veg. Sc. p. 385. *Sph. olivacea* Ehrenb. Sylvæ p. 16. *Sph. tentaculata* Batsch Cont. I, fig. 183 (?). — Stromate orbiculari, depresso, cortice immutato formato, peridermio tecto; peritheciis in singulo stromate numerosis (circiter 12), in stromate in orbem dispositis, basi sæpe ligno adnatis, sphæroideis, parvulis; ostiolis in disco, per peridermium transversim erumpente, planiusculo, lanciformi vel suborbiculari vel lineari, atro exsertis, distantibus vel confertis, cylindraceis, plerumque abbreviatis, sed interdum longiusculis, rostellatis, subtortis; ascis sessilibus, fusoideo-elongatis, 40-52 ≃ 7-9, octosporis; sporidiis distichis, fusoideo-elongatis, plerumque curvulis 4-guttulatis 1-(3?)-septatis medio haud constrictis, chlorino-hyalinis, 12-18 ≃ 3-4. 2376

Hab. in ramulis exsiccatis Ribis nigri, Rib. Grossulariæ, Rib. rubri et Rib. alpini in Britannia, Suecia, Fennia, Belgio, Italia, Germania, Gallia, Amer. bor. — Sec. Rehm, Asc. n. 429 adsunt paraphyses articulatæ.

25. **D. Chorostate strumellæformis** (De Not.) Sacc. *Sphæria strumellæformis* De Not. Micr. ital. Dec. VIII, 119, fig. IV. — Acervulis corticolis erumpentibus, subvalseis, 1 mill. diam., stromate extus nigrescente intus pallescente exceptis, peritheciis globoso-conicis, nigris, tenuibus, circinantibus, in ostiola cylindracea, exerta, obtusa desinentibus; ascis fusoideo-clavulatis aparaphysatis, 40-50 ≃ 7; sporidiis octonis cylindraceo-fusoideis utrinque obtusiusculis, 4-guttatis, dein tenuiter (spurie?) 3-septatis, hyalinis, 15 ≃ 4-5. 2377

Hab. in ramis dejectis corticatis prope Taurinum (Italia).

26. **D. Chorostate sociata** (C. et E.) Sacc. *Valsa sociata* C. et E. Grev. IV, p. 11. — Minuta tecta; peritheciis subglobosis, cortice immersis, paucis 3-5, atro-cinctis; ascis clavatis; sporidiis ellipticis, uniseptatis, hyalinis, 12 ≃ 4. 2378

Hab. in ramis corticatis Benzoin, New Jersey Amer. bor. — Supra acervulos plerosque emergunt fasciculi *Helminthosporii* cujusdam, conidiis clavatis multiseptatis præditi.

27. **D. Chorostate varians** (Curr.) Sacc. *Diatrype varians* Curr. Linn. Trans. XXII, p. 270, t. 46, fig. 77. Cooke Handb. n. 2439. — Peritheciis subglobosis; ostiolis conicis, subinde apice umbilicatis, peridermium seriatim parallele perforantibus; ascis tereti-fusoideis, breve stipitatis, crassiusculis, octosporis; sporidiis distichis, oblongo-navicularibus, utrinque obtusis, constricto-1-septatis, hyalinis, 15 μ. longis. 2379

Hab. in ramis corticatis emortuis, Eltham Britanniæ. — Peridermium quo innascitur, vix mutatum. Species quoad subgenus dubia; an potius e sect. *Tetrastagæ?*

28. **D. Chorostate Helicis** Niessl Not. Pyr. pag. 50 *D. Nitschkei* J. Kunze F. Scl. exs. n. 124. — Stromate diatrypeo, basi effusa ligno immerso, in ejusque superficie crustoso, exspanso, medio elevato, pulvinato, apice cortici interiori adnato, fere tecto vix erumpente, minuto, sordide atro, intus albido; peritheciis paucis 2-4 in singulo stromate, globosis, majusculis, 0,5 mill. lat.; ostiolo brevi, fragile coriaceo-subcarbonaceis, luce refracta sordide violaceis; ascis lanceolatis stipite brevi, 45-55 ≃ 7-9; sporidiis farcte distichis, fusoideo-oblongis, rectis, inæquilateralibus vel parum curvatis, obtu- 2380

siusculis, medio constrictis 1-(3?)-septatis, 4-guttulatis, hyalinis, 10-12 ≃ 3-4.

Hab. in ramis corticatis Hederæ Helicis prope Eisleben Germaniæ (J. Kunze).

29. **D. Chorostate albovelata** (B. et C.) Sacc. *Valsa albovelata* B. et C. N. Amer. Fungi n. 875. Cooke Valsei Un. St. 119. — Pustulis cortice tectis; disco albo, ostiolis nigris cylindricis punctato; ascis clavatis; sporidiis anguste fusiformibus, quadrinucleatis, 20 ≃ 4. 2381

Hab. in ramis Rhois copallinæ in Carolina inf. Amer. bor., socia *Helminthosporii* specie conidiis breve fusoideis 3-septatis.

30. **D. Chorostate stilbostoma** (Cooke) Sacc. *Valsa stilbostoma* Cooke Handb. n. 2498, nec Fr. *Valsa Rhois* Cooke Exs. n. 245 (nec, ut videtur, *Diap. Rhois* Nits.). — Peritheciis circinantibus, disco albido subpruinoso coronatis; ostiolis prominulis, subsparsis, emergentibus, denique discum oblitterantibus; ascis subfusoideis, octosporis; sporidiis distichis, hyalinis elliptico-acuminatis, constricto-1-septatis, plasmate bipartito, 17-18 μ. longis. 2382

Hab. in ramis emortuis Rhois in Britannia et Amer. bor.

31. **D. Chorostate Woolworthii** (Peck) Sacc. *Valsa Woolworthii* Peck 28 Rep. on the St. Mus. New York. — Pustulis minutis erumpentibus; peritheciis 2-6 aggregatis, cortice interiore nidulantibus; ostiolis stipatis, prominulis, peridermium longit. fissum vix superantibus; ascis octosporis; sporidiis stipatis v. biseriatis, oblongis v. subfusoideis, uniseptatis, quadrinucleatis, subhyalinis, 10 μ. longis. 2383

Hab. in ramis Quercus v. Caryæ, Greenbush Amer. bor. — Pustulæ copiosæ, sæpius longitudinaliter seriatæ.

32. **D. Chorostate dryophila** (Niessl) Sacc. *Cryptospora dryophila* Niessl in Rabh. F. Eur. n. 1941. — Stromate valseo conoideo e corticis parenchymate haud mutato formato, limitato, superne atrato; peritheciis aggregatis ovoideis vel mutua pressione angulatis ostiolis exsertis superne tumidis; apice conoideis; ascis clavatis, sessilibus, membrana interna apice incrassata perforataque, 70-80 ≃ 10; sporidiis distichis fusoideo-oblongis, parum curvatis, medio septatis constrictisque, guttulis binis globosis majusculis, hyalinis, 16-19 ≃ 5; conidiis lanceolato-fusiformibus, rectis vel curvatis, continuis, hyalinis, 16-20 ≃ 3. 2384

Hab. in ramis dejectis Quercus pr. Voitsberg Styriæ (G. v. Niessl). — *Diaporthi leiphæmæ* peraffinis, a qua differt sporidiorum et conidiorum forma et magnitudine.

33. **D. Chorostate leiphæma** (Fr.) Sacc. Myc. Ven. Spec. p. 135, t. 2385

XIII, fig. 26-28. *Sphæria leiphæma* Fr. S. M. II, p. 399. — Pustulata, stromate corticali globoso-conico discoque erumpente pallido; peritheciis globosis, aggregatis, tenuibus; ostiolis subexertis ovatis (in locis suffocatis rostellatis); ascis fusoideis, subsessilibus, 70-80 ≃ 9, 8sporis; sporidiis distichis, ovato-lanceolatis, 18 ≃ 5, 1-septatis ad septum tandem nonnihil constrictis, hyalinis, 2-pluriguttulatis. — St conid. notus (An *Fusicoccum quercinum* Sacc.?). Cfr. Fuck. Symb. sub *Cryptospora leiphæma.*

Hab. in ramis Quercus pedunculatæ, sessilifloræ et pubescentis in Suecia, Britannia, Germania, Italia, Gallia, Belgio et America boreali.

34. **D. Chorostate quercina** Fuck. Symb. myc. p. 204. *D. Carpini* var. *quercina* Rehm Asc. n. 149. — Stromatibus conico-depressis, corticolis, erumpentibus, linea atra circumscriptis; peritheciis globulosis; ostiolis in discum conjuctis rotundatis, nigris; ascis oblongis, sessilibus, 8sporis, 50-60 ≃ 6-7; sporidiis distichis, oblongo-lanceolatis, 4guttulatis, 16 ≃ 3, muticis, hyalinis. 2386

Hab. in ramis siccis Quercus in Germania et Gallia.

35. **D. Chorostate dichænoides** (B. et C.) Sacc. *Melogramma dichænoides* B. et C. North Am. Fungi n. 861. — Acervulis erumpentibus, suborbicularibus, v. transverse oblongis; ostiolis conicis rugosis exasperatis; ascis clavatis; sporidiis oblongis subinde deorsum acutioribus, obtusis, hyalinis, uniseptatis, 25 μ. longis, monostichis v. distichis. 2387

Hab. in ramis Quercus, Alabama in Amer. bor.

36. **D. Chorostate Robergeana** (Desm.) Niessl in Rabh. F. Eur. n. 2222. *Sphæria Robergeana* Desm. Not. 19, 1851, p. 11. — Corticola, immersa, minuta; peritheciis 6-15 epidermide adnata tectis confertis irregulariter circinantibus, nigris, collabescendo concavis, primum globosis albido-farctis; ostiolis convergentibus cylindricis, erumpentibus prominulis; ascis subfusiformibus, 75 μ. long.; sporidiis octonis biserialibus, 15 ≃ 5, subellipsoideis, uniseptatis, 2-guttulatisve, chlorino-hyalinis. 2388

Hab. in Gallia et Austria in ramis siccis Staphyleæ pinnatæ; sociis (teste Niessl) spermogoniis.

37. **D. Chorostate ocularia** (C. et E.) Sacc. *Valsa ocularia* C. et E. Grev. VI, p. 11, t. 95, f. 3. — Pustulis epidermide tectis, ad basim ligno adnatis; peritheciis in stromate pallido congestis, nigro-cinctis; ostiolis atris, cylindricis, erumpentibus; ascis clavatis; spo- 2389

ridiis fusiformibus, 4-nucleatis demum leniter 1-(3?)-septatis, hyalinis, 25 ≃ 4.

Hab. in ramis Ilicis glabræ (?), New Jersey Amer. bor.

38. **D. Chorostate pulchra** (Curr.) Sacc. *Valsa pulchra* Curr. Linn. Trans. XXII, n. 152, t. 48, fig. 143, Cooke Handb. n. 2492. Peritheciis stromate valseo aggregatis; ascis tereti-fusoideis brevissime stipitatis, octosporis 200 ≃ 20-22; sporidiis subdistichis breve fusoideis, constricto-1-septatis, granulosis, chlorino-hyalinis, 30 ≃ 11. 2390

Hab. . . . . . (matrix et locus non indicata) sed verisim. in Britannia. — An *Melanconis?*

39. **D. Chorostate paulula** (C. et E.) Sacc. *Valsa* (Diaporthe) *paulula* C. et E. in Grev. VII, p. 9. — Pustulis minimis, epidermide tectis; peritheciis subglobosis, ostiolis brevibus erumpentibus; ascis clavatis; sporidiis anguste fusiformibus, quadrinucleatis, 16-18 μ. long. 2391

Hab. in ramis Nyssæ, New Jersey Amer. bor.

40. **D. Chorostate patria** Speg. Nov Add. n. 74 et Mich. II, p. 250. — Acervulis sparsis, valsiformibus, e 7-8 peritheciis circinantibus efformatis, ligno late nigrificato subimmersis, cortice tectis, ostiolis tantum cortice tumefacto erumpentibus, atque superficiem attingentibus; ascis cylindraceo-fusoideis, superne subtruncatis, octosporis, aparaphysatis 50-60 ≃ 8-10; sporidiis distichis subcylindraceis, medio constricto-1-septatis, hyalinis, loculis biguttulatis 12-15 ≃ 4. 2392

Hab. in ramulis dejectis Sorbi aucupariæ in montanis di Ampezzo Ital. bor.

41. **D. Chorostate nucleata** (Curr.) Sacc. *Diatrype nucleata* Curr. Linn. Trans. XXII, p. 270, n. 72. t. 46, f. 76. Cooke Handb. n. 2425. — Peritheciis ovoideis v. globosis, ostiolis breviusculis instructis, in acervulos elongatos irregulares aggregatis, linea nigra circumscriptis; ascis tereti-fusoideis, brevissime stipitatis, octosporis; sporidiis distichis anguste fusoideis, medio constrictis, 4-nucleatis, utrinque acutiusculis, 17-20 μ. long., hyalinis. 2393

Hab. in ramis Ulicis, Weybridge Britanniæ.

42. **D. Chorostate interrupta** (Mont.) Sacc. *Diatrype interrupta* M. et Fries. in Notice etc., in Ann., 2, I, pag. 295, t. 11, f. 1, sub *Sphæria* Mont. Syll. Crypt. n. 753. — Longitrorsum et interrupte erumpens, lineari-lanceolata, nigra; peritheciis ovoideo-sphæricis, intus nigris, stromati ceraceo albo irregulariter immersis, ostiolis vix exertis rugulosis; ascis subclavatis; sporidiis elliptico-oblongis, guttulatis, hyalinis. 2394

Hab. in trunco et ramis Cytisi scoparii Lyon Galliæ (Montagne). — An, monente Nitschke, eadem ac *D. Sarothamni?*

43. **D. Chorostate impulsa** (C. et P.) Sacc. *Valsa impulsa* C. et Peck in 27 Rep. on the St. Mus. New York, pag. 109. — Erumpens; stromate suberoso e cortice formato; peritheciis 8–12, aggregatis, globosis, nigris; ostiolis elongatis, levibus, nigris; ascis cylindraceis, sporidiis fusoideis uniseptatis, hyalinis, 20 ≃ 7,5, quadrinucleatis. 2395

Hab. in Amer. bor. Adirondack, in ramis emortuis Fraxini. 2396

44. **D. Chorostate furfuracea** (Fr.) Sacc. *Sphæria furfuracea* Fr. S. M. II, p. 109, *Valsa furfuracea* (Fr.) Cooke Handb. n. 2493 et Vals. U. S. p. 121. — Irregulariter circinans; peritheciis globosis pulvere furfuraceo immixtis, ostiolis brevissimis junctis obsolete prominulis; ascis cylindraceis; sporidiis monostichis, anguste ellipticis, uniseptatis, hyalinis, 25–30 ≃ 11 (teste Cooke).

Hab. in ramis Tiliæ, Populi etc. in Suecia, Gallia, Amer. bor. — Stroma nunc lutescente- nunc olivaceo-pulverulentum. Discus minutus planus vix emergens. Perithecia in quoque stromate circ. duodecim. « An *Hercospora?* ».

45. **D. Chorostate fibrosa** (Pers.) Fuck. Symb. myc. p. 204. Sacc. Myc. Ven. p. 106, t. XIII, fig. 33-35. *Sphæria fibrosa* Pers. Syn. p. 40. *Sph. extensa* Fr. p. p. — Stromatibus innatis conico-depressis, circumscriptis, fibrosis; peritheciis immersis globosis nigris, collis longiusculis in ostiola conferta subrotunda levia erumpentia desinentibus; ascis cylindricis basi abrupte breviterque attenuatis, 100 ≃ 10, 8sporis; sporidiis oblique monostichis, interdum sporidio uno alterove transverse posito (ibique ascus protuberans), ellipsoideis, utrinque rotundatis, constricto-1-septatis, loculis 1-magniguttatis, 12–14 ≃ 8. — Status spermogonicus; conceptaculis paulo minoribus, pluricellularibus, cellulis pulpa luteo-fusca fœtis; spermatiis, ellipsoideis, basi acuminatis, continuis, hyalinis, nucleolatis, 11 ≃ 5. 2397

Hab. in truncis ramisque exsiccatis Rhamni cathartici in Suecia, Britannia, Germania, Belgio, Gallia, Italia.

46. **D. Chorostate extensa** (Fr.? Curr.) Sacc. *Valsa extensa* (Fr.?) Curr, Linn. Trans. XXII, n. 119, t. 47, fig. 116. — Convexa, crusta effusa ambiente connexa, stromate fibroso; peritheciis ovoideis; ostiolis stipatis, oblongis; ascis tereti-clavatis, octosporis; sporidiis oblique monostichis, ellipsoideis, obtusis constricto-1-septatis, binucleatis, hyalinis, 15-16 μ. long. 2398

Hab. in ramis corticatis Rhamni cathartici in Britannia et Suecia. — Verisimillime nil nisi forma *D. fibrosæ*.

47. **D. Chorostate faginea** (Curr.) Sacc. *Valsa faginea* Curr. Linn. Trans. XXII, p. 281, t. 48, f. 168. — Peritheciis conicis in acervulos valseos collectis; ostiolis peridermium perforantibus, emergentibus, denique decedentibus; ascis octosporis; sporidiis distichis elliptico-fusoideis, constricto-1-septatis, inæquilateralibus, 12–13 μ. long., 4-guttulatis, hyalinis. 2399

Hab. in ramis Fagi, Eltham Britanniæ.

48. **D. Chorostate euryala** (Mont.) Sacc. *Valsa euryala* Mont. Syll. Crypt. n. 768 et Cent. V, n. 92, in Ann., dec. 1845, p. 362. — Urceolata, immersa; stromate corticali; peritheciis aggregatis circinantibus numerosis convergenti-erectis, ostiolis annularibus in discum planum amplum atrum conjunctis; ascis minutis, 40 × 3-4; sporidiis uniseptatis minutissimis, 5 μ. long. 2400

Hab. in cortice Abietis, Bagnères-de-Bigorre, loco Sapinière d'Oubat dicto Galliæ (Ch. Des Moulins). — An sporidia revera tam minuta?

49. **D. Chorostate detrusa** (Fr.) Fuck. Symb. myc. p. 205. *Sphæria detrusa* Fr. S. M. II, p. 382. — Conica, stromate læte luteo, ligno immerso, superne conceptaculo cincto, ostiolis conjunctis umbilicatis; ascis oblongis, sessilibus, 8sporis, 58 × 9; sporidiis subdistichis, ovato-oblongis, uniseptatis, hyalinis, 13 × 5. — Stat. spermogonicus. Pustulis multicellularibus, depressis, demum epidermidem lacerantibus; spermatiis (sterigmatibus) angustissime filiformibus, vermicularibus. 2401

Hab. ad ramos siccos Berberidis vulgaris in Suecia, Britannia, Gallia, Germania, Italia et Belgio. — Inferne absque conceptaculo, a cortice tegente discreta, quare illo deciduo nuda persistit. Perithecia stipata, ovata, ligno ad dimidium immersa, stromate luteo tecta, ex quo facillime dignoscitur.

50. **D. Chorostate decorticans** (Lib.) Sacc. et Roum. Reliq. mycol. Lib. II, n. 88. — *Sphæria decorticans* Lib. Herb. n. 682, nec Alior. — Acervulis valseis minutis, corticolis, ligno denigrato appositis; peritheciis globulosis; ostiolis brevibus disculum atrum erumpentem vix attingentibus; ascis fusoideis 90–95 × 15–18, subsessilibus, lumine apice bifoveolato, octosporis; sporidiis distichis anguste fusoideis, utrinque obtusiusculis, 18–20 × 4, rectiusculis, 1-septatis, constrictis 4-guttulatis, hyalinis; spermogoniis *Phomam* 2402

padinam referentibus, subtectis globoso-lenticularibus sparsis; spermatiis fusoideis 9-11 ≃ 3, hyalinis.

Hab. in ramis corticatis Pruni Padi Malmedy in finibus Galliæ et Germaniæ.

51. **D. Chorostate difficilior** Kunze F. Sel. exs. n. 352 (absque diagnosi). — Peritheciis hinc inde in acervulos subvalseos minutos aggregatis corticolis globulosis, ostiolis subconvergentibus in disculum minutum atrum erumpentibus, vix emergentibus; ascis fusoideo-clavatis, breve stipitatis, 90-110 ≃ 10-14, octosporis, paraphysibus (spuriis?) filiformibus; sporidiis distichis fusoideis rectis v. inæquilateralibus, 20-22 ≃ 5-6, plasmate bipartito 1-septatis, vix constrictis, hyalinis. 2403

Hab. in ramulis Pruni spinosæ emortuis pr. Zürich Helvetiæ (Winter). — An satis diversa a præcedente?

52. **D. Chorostate tuberculosa** (Ellis) Sacc., *Valsa tuberculosa* Ellis Torr. Bot. Cl. 1881, p. 89. — Peritheciis 8-10 subcircinantibus, stromate corticali colore parum mutato sed compactiori immersis lineaque nigra lignum quoque penetrante circumscriptis; ostiolis breve cylindraceis crassis, obtusis, irregulariter dehiscentibus; ascis crasse lanceolatis, sessilibus, 75 ≃ 15; sporidiis biseriatis, oblongo-ellipticis, uniseptatis, leniterque constrictis, hyalinis, 12-13 ≃ 7-8, binucleatis, loculis subinde denique secedentibus. 2404

Hab. in cortice trunci Amelanchieris canadensis in America boreali. — Cortice denique dejecto, acervuli ligno libere adhærent.

53. **D. Chorostate Cratægi** (Curr.) Fuck. Symb. myc. p. 204, *Valsa Cratægi* Curr. Linn. Trans. XXII, p. 278, t. 48, f. 1450, — Acervulis subvalseis satis compactis, ostiolis parum emergentibus, obtusiusculis; ascis fusoideis 90-100 ≃ 9-12, aparaphysatis, lumine apice 2-foveolato, octosporis; sporidiis distichis, cylindraceis, utrinque obtusiusculis, 17-18 ≃ 5-6, 1-septatis, leniter constrictis, 4-guttulatis, hyalinis. 2405

Hab. in ramis corticatis emortuis Cratægi Oxyacanthæ in Germania, Britannia, Italia, Gallia et Amer. bor.

54. **D. Chorostate crassiuscula** Sacc. et Bizz. Mich. II, p. 378. — Acervulis hinc inde sparsis, corticolis, linea stromatica nigra usque ad lignum decurrente cinctis, peritheciis aggregatis, globulosis, nigricantibus, $^1/_2$ mill. diam., ostiolis subconvergentibus, erumpentibus, apice leniter incrassatis obtusisque; ascis fusoideo-clavatis, 80-84 ≃ 13-15, aparaphysatis, octosporis; sporidiis distichis crasse fu- 2406

soideis, 18-20 ≃ 6-7½, utrinque obtusiusculis, rectis, 1-septatis leniterque constrictis, 4-guttatis, hyalinis.

Hab. in ramis emortuis Mahoniæ Aquifolii in Horto Pavino. — Affinis *D. detruscæ* a qua stromate cinereo nec flavo, ascis sporidiisque multo crassioribus statim dignoscitur.

55. **D. Chorostate fulvo-pruinata** (Berk.) Sacc., *Sphæria fulvo-pruinata* Berk. Decad. n. 98. — Pustulata, subangulata basi effusa; peritheciis globoso-oblongis collo elongato; stromate discoque ostiolis punctato fulvis; ascis linearibus; sporidiis ellipticis uniseptatis, binucleatis. 2407

Hab. in ramis putrescentibus Platani occidentalis, Ohio Amer. bor. (F. G. Lea). — Pustulæ 2' mill. crassæ.

56. **D. Chorostate Ailanthi** Sacc. Myc. Ven. Spec. pag. 137, t. XIII, fig. 40–43. — Stromate valseo; acervulis sparsis, parvis e 5–6 peritheciis constantibus, stromate lignescente nigro-limitato insidentibus, immersisque, et epidermide primo tectis, dein cinctis; peritheciis subrotundis, ⅓ mill. diam., nucleo flavido fœtis, ostiolis elongatis, cylindricis, conniventibus, in discum parvum nigrum convexo-tuberculosum desinentibus, rarius nonnihil exertis; ascis cylindraceo-fusoideis, 50 ≃ 7, 8sporis; sporidiis oblongo-fusoideis, hyalinis, 4-guttulatis, tandem 1-septatis ad septum leviter constrictis, 12-15 ≃ 4. — Status spermogonicus: acervulis conoideis, atris subemergentibus; sterigmatibus filiformi-arcuatis, 25 ≃ ¼, spermatia ovato-fusoidea, hyalina, 2-guttulata, 7 ≃ 2½, ferentibus. 2408

Hab. in ramis junioribus exsiccatis Ailanthi glandulosæ, Selva agri Tarvisini, Italia bor. — Affinis *D. oncostomæ* a qua statim distinguitur ascis, sporidiis, spermatiis multo minoribus, ostiolisque plerumque non exertis.

57. **D. Chorostate apocrypta** (C. et E.) Sacc., *Valsa apocrypta* C. et E. Grev. VII, p. 14. — Tecta, lineata; peritheciis immersis, inconspicuis; ascis clavatis; sporidiis biseriatis, elongato-ellipticis, uniseptatis, vix constrictis, hyalinis, 25-28 ≃ 8-9. 2409

Hab. in ramis Caryæ albæ, New Jersey Amer. bor. — Nisi dissecta ægre conspicienda.

58. **D. Chorostate lixivia** (Fr.) Sacc., *Valsa lixivia* Quel. Jur. p. 502, *Sphæria lixivia* Fr. S. M. II, p. 385 (?). — Stromatibus minutis, flavicantibus; peritheciis exiguis, globulosis, nigris, laxis, ostiolis fasciculatis granulosis, dein relaxatis; sporidiis lanceolatis, constricto-1-septatis, 4-guttulatis, 12 μ. long. 2410

Hab. in ramis corticatis Juglandis regiæ in Vogesis et Jura Galliæ.

59. **D. Chorostate bicincta** (C. et P.) Sacc., *Valsa bicincta* C. et Peck 29 Rep. on the St. Mus. New York. — Erumpens; stromate albo-farinoso; peritheciis 6-10, subglobosis, circinantibus, nigris; ostiolis elongatis convergentibus; disco albido linea nigra, denique obsoleta, circumscripto; ascis cylindraceis; sporidiis biseriatis, fusoideis, 4-nucleatis, 10-13 μ. long., 1-(3?)-septatis. 2411

Hab. in ramis Juglandis cinereæ, Greenbush Amer. bor.

60. **D. Chorostate corymbosa** (C. et E.) Sacc., *Valsa corymbosa* C. et E. Grev. VIII, pag. 15. — Peritheciis atris, globosis, ligno immersis, 6-10, nigro-cinctis; ostiolis erumpentibus; ascis cylindraceis; sporidiis uniseriatis, ellipticis, uniseptatis, leniter constrictis, nucleatis, granulatis, hyalinis, 18-20 ≃ 8-9. 2412

Hab. in ramis Vaccinii corymbosi, New Jersey Americæ borealis.

61. **D. Chorostate salicella** (Fr.) Sacc. Myc. Ven. Spec. p. 135, t. XIII, fig. 22-25, *Sphæria salicella* Fr. S. M. II, 377, *Sph. salicina* Curr. Linn. Trans. XXII, t. 48, f. 149, *Cryptospora salicella* (Fr.) Fuck. Symb. myc. p. 193. — Peritheciis hinc inde subaggregatis v. gregariis, peridermio tectis eique soluto adhærentibus, sphæroideis, siccis cupulato-collapsis, glabris, nigris, 0,4 mill. lat., ostiolis per peridermium erumpentibus, cylindraceis v. conoideis; ascis elongato-clavatis, apice, leviter attenuatis, 65-72 ≃ 15-16 octosporis; sporidiis distichis, oblongatis, rectis vel leviter curvulis, utrinque obtusis, uniseptatis, massa grumosa repletis, chlorino-hyalinis, ad septum vix vel levissime constrictis, 18-20 ≃ 6-7. — Sec. Fuck. l. c. st. conidicus sistit *Discellam carbonaceam* (Fr.) B. et Br. 2413

Hab. in ramulis corticatis Salicis albæ, vitellinæ, triandræ, capreæ in Suecia, Britannia, Belgio, Germania, Gallia, Austria, Italia, Amer. bor. — Ostiola perithecii cylindracea, raro satis elongantur et ex epidermide emergunt. Sporidia (in exemplaribus gallicis) quandoque ad septum lenissime annulato-tumidula vidi, quo charactere cum *Sphæria sphingiophora* Oud. Mat. Myc. Néer. I, p. 54, pl. VII, fig. II, (in Corno) congruere videntur, sed fungillus meus a *D. salicella* typica non satis differt, ut separari mereatur.

62. **D. Chorostate sphingiophora** (Oud.) Sacc., *Sphæria sphingiophora* Oud. Mat. Mycol. Neerl. II, 64, t. VII, fig. 11. — Peritheciis sparsis, infra epidermidem nidulantibus, demum erumpentibus, collo bre- 2414

vissimo, poro rotundo perforato præditis; ascis oblongis, 8sporis 60 ≃ 12; sporidiis oblique distichis, 17 ≃ 5, oblongis, utrinque obtusis, rectis vel parum curvatis, septo tamquam annulo prominente bilocularibus, hyalinis.

Hab. in ramis Corni albæ, prope Naaldwyk Hollandiæ. — *D. salicellæ* certe affinis.

63. **D. Chorostate coramblicola** (B. et Br.) Sacc., *Diatrype coramblicola* B. et Br. Ann. N. H. n. 1725. — Pustulis elongatis, bullatis; ostiolis prominulis, rugosis; sporidiis fusoideis, 4-nucleatis, 8–9 μ. longis. 2415

Hab. in caulibus Brassicæ, Forres Britanniæ. — An e sect. *Euporthe?*

B) Chorostella: sporidiis appendiculatis.

64. **D. Chorostate Hystrix** (Tode) Sacc. Fungi Ven. Ser. IV, pag. 6, *Diatrype Hystrix* Fr. Roum. Fungi Gall. n. 76, *Sphæria Mougeotii* Pers. sec. Fr. Elench., *Sphæria Hystrix* Tode Meckl. II, 53, fig. 127. — Peritheciis numerosis in acervulos valseos aggregatis, stromatique luteolo corticali laxe infossis, globulosis, 1/4 mill. d., atris, extus lutescenti-pruinosis; ostiolis perithecio duplo longioribus, cylindraceo-filiformibus arcuatim divergentibus; ascis copiosis, fusoideis, initio stipitatis, dein stipite evanescente subsessilibus, p. sporif. 45 ≃ 10, aparaphysatis, 8sporis; spordiis inordinate oblique monostichis, v. distichis, v. subtristichis, cylindraceo-fusoideis, 10 ≃ 3, plerumque curvulis, 1-septatis, ad septum leniter constrictis, utrinque breve acuteque appendiculatatis, 4-guttulatis, hyalinis. 2416

Hab. in ramis Aceris Pseudoplatani in montibus Bellunensibus Ital. bor. nec non in Vogesis. — A *D. Mamiania, D. longirostri* et *D. Niessleana,* etsi affinis, satis recedit.

65. **D. Chorostate Hystricula** Sacc. et Speg. Mich. I, p. 392, *Sphæria Lebiseyi* (Desm.?) Roum. Fungi Gall. n. 482. — Stromate nullo manifesto; peritheciis hinc inde in acervulos minutos aggregatis v. subsparsis, cortice nidulantibus, globulosis, 1/2 mill. diam. nigris, peridermio secedenti adhærentibus et basi dein cupulato-collapsis, ostiolis peridermium fasciculatim perforantibus, capillaceis, 1/2 mill. long.; contextu perithecii distincto parenchymatico rufo-fuligineo; ascis fusoideis, utrinque acutis, 40–45 ≃ 6–7, lumine bifoveolato, aparaphysatis, octosporis; sporidiis oblique monostichis v. distichis 2417

fusoideis rectiusculis, 1-septatis, 4-(v. pluri-) guttulatis, 12-14 ≃ $2^1/_2$, hyalinis, initio utrinque appendiculatis, dein muticis.

Hab. in cortice Aceris campestris ramorum, Conegliano Ital. bor. (Spegazzini), in Germania (Thuem) et in Vogesis (Mougeot). — Species prædistincta, nonnulis notis *Gnomoniis* affinis. Ad sectionem *Tetrastagon* ob perithecia sæpe sparsa pari fere jure duci posset. Linea stromatica semper deest ut in *Diap. rostellata* (Fr.) Nits.

66. **D. Chorostate castanea** (Tul.) Sacc. Mich. I, 507, *Valsa castanea* Tul. Carp. II, p. 202, t. XXIII, fig. 1-12, *D. Castaneæ* Sacc. Myc. Ven. Spec. p. 136, t. XIII. fig. 29-32. — Stromate valseo, rufescente epidermide rupta cincto et partim tecto; peritheciis in quoque acervulo 6-8, ovoideis v. angulosis, leniter conniventibus, atris stromate lignescente corticali exceptis, diam. ca $^1/_3$ mill.; ostiolis brevibus in discum desinentibus; ascis cylindraceo-clavatis breviter crasseque stipitatis, 40-55 ≃ 8-9, 8sporis; sporidiis recte distichis, raro oblique monostichis, cylindraceo-fusoideis, curvulis, 14-18 ≃ 3-35, utrinque appendicula setiformi, incurva, hyalina, 3-4 μ. longa, labili auctis, farctis, hyalinis initio 4-guttulatis, dein medio constrictio-1-septatis, loculo altero paulo crassiore. — Status spermogonicus; acervulis quam ascophoris minoribus, sed forma similibus, cellulis pulpa nigricante fœtis; spermatiis breve fusoideis, 6-7 ≃ $1^1/_2$-2, simplicibus, hyalinis. 2418

Hab. in ramulis Castneæ vescæ in Galliæ variis locis et in agro Tarvisino et Patavino, Ital. bor.

67. **D. Chorostate leiphæmoides** (Fuck.) Sacc., *Cryptospora liphæmoides* Fuck. Symb. myc. App. II, p. 34. — Peritheciis sub stromate ferrugineo tuberculiformi, erumpente 1 lin. lat. nidulantibus, 1-4, majusculis, globosis, nigris, nucleo sordido, ostiolis demum in disco ferrugineo exsertis, sed brevibus, conicis, atris; ascis clavatis, in stipitem attenuatis, 8sporis, 48 ≃ 10; sporidiis distichis, fusiformibus, antice parum crassioribus, curvatis, utrinque acute appendiculatis, uniseptatis, 16-18 ≃ 3-4, hyalinis. — Fungus leucoconidiophorus erumpens, tuberculiformis, magnus, 1-$1^1/_2$ lin. lat., $^1/_2$ lin. crass., extus lævis, fusco-ferrugineus, intus siccus, niveus; leucoconidiis oblongo-ovatis, hyalinis, rectis, biguttulatis, 6-10 ≃ 3-4. 2419

Hab. in ramis exsiccatis corticatis Castaneæ vescæ, Vollrads Germaniæ. — Verisimillime non diversa a præcedente.

68. **D. Chorostate pyrrhocystis** (B. et Br.) Fuck. Symb. myc. p. 204, *Dialrype pyrrhocystis* B. et Br. Ann. N. H. n. 841, t. 9, f. 10. 2420

— Irregularis, disco plano vel concavo, ostiolis nigris punctato; stromate pallido; peritheciis brunneis, ascis fusoideo-clavatis, octosporis; sporidiis biseriatis, oblongo-ellipticis, utrinque obtusiusculis, 25 μ. long., 2-guttatis, hyalinis (teste Fuck. utrinque acute appendiculatis).

Hab. in ramis corticatis Coryli Avellanæ in Britannia et Germania. — Icon B. et Br. præbet paraphyses (genuinas?).

69. **D. Chorostate sulphurea** Fuck. Symb. myc. p. 205, *Melanconis?* *umbonata* Sacc. Myc. Ven. Spec. p. 126, t. XII, fig. 39-41 (nec Auct.). — Peritheciis 8-19 circinatis, in stromate spurio, amœne sulfureo nidulantibus, globosis, in collum attenuatis, ostiolis in disco sulfureo, plano prominulis, globosis, perforatis, atris; ascis clavato-oblongis, stipitatis, 80-94 ≃ 14-16, 8sporis; sporidiis distichis, ovato-oblongis, didymis, utrinque apiculatis, sæpe curvatis, hyalinis, 24 ≃ 8. — Spermogoniis sub corticis epidermide nidulantibus, latissime conicis, orbicularibus, 2-2½ mill. latis, gelatina grisea, homogenea repletis, disco centrali, erumpente, orbiculari, applanato seu valde convexo, pulverulento, amœne flavo, demum perforato et massa gelatinosa, diaphana, fusca, expulsa; spermatiis late fusiformibus, quandoque inæquilateralibus, continuis, 1-2guttulatis, 12-16 ≃ 5-6, hyalinis. 2421

Hab. in ramis corticatis Coryli Avellanæ in Germania, Helvetia, Gallia et Italia.

70. **D. Chorostate affinis** Sacc. Mich. I. p. 28. — Peritheciis corticolis, in acervulos sparsos valseos monostiche aggregatis, epidermide elevata medioque fissa cinctis, globosis, nigris intus nitidis, stromate furfuraceo lutescente junctis; contextu perithecii distincte cellulari fuligineo; ostiolis cylindraceis, vertice conoideis, peridermium parum excedentibus; ascis fusoideis, 110-120 ≃ 20, apice subtruncatis lumineque coarctato v. obsolete bifoveolato, aparaphysatis, octosporis; sporidiis distichis oblongis, 25-30 ≃ 10-12, rectis curvulisve, constricto-1-septatis, 2-guttulatis, granulosis, hyalinis, initio appendiculâ cylindraceâ hyalina utrinque auctis. 2422

Hab. in ramulis Coryli Avellanæ, Conegliano, Ital. bor. et Saintes Galliæ. — A *D. sulphurea* Fuck. præcipue differt sporidiis utrinque rotundatis, crassioribus, stromate obscuriore, an satis?

71. **D. Chorostate decedens** (Fr.) Fuck. Symb. myc. App. I, p. 318. *Sphæria decedens* Fr. S. M. II, p. 481. — Gregaria, peritheciis globosis immersis nigris, collo recto, ostiolis epidermide vix lacerata erumpentibus distantibus; ascis subfusoideis, 70-80 ≃ 9, octo- 2423

sporis, lumine apice bifoveolato; sporidiis lanceolato-oblongis medio septatis, 4guttulatis, hyalinis, utrinque acute appendiculatis, 12 ≃ 4.

Hab. in ramis corticatis emortuis Coryli Avellanæ in Suecia, Britannia, Gallia et Germania. — Perithecia nunc solitaria, nunc conferta, in cortice interiore immersa, nuda, in collum breve attenuata, nulla linea nigra circumscripta. Discus nullus adest distinctus, sed ostiola pertusa disposita fere ut in *D. Tessera*.

72. **D. Chorostate Tessera** (Fr.) Fuck. Symb. myc. App. I. p. 318. 2424
Sphæria Tessera Fr. S. M. II, p. 405. — Peritheciis irregulariter circinantibus, disco erumpente plano mere corticali tectis, ostiolis sparsis prominulis; ascis oblongo-fusoideis, 60–70 ≃ 10–12, lumine apice bifoveolato, 8sporis; sporidiis oblongo-fusoideis, constricto-4-septatis, 15–20 ≃ 6–7, utrinque minute appendiculatis, 4-guttulatis, hyalinis.

Hab. in ramis corticatis Coryli Avellanæ in Suecia, Germania, Gallia, Italia, Belgio. — Immersa. Perithecia subdena, aggregata, globosa, exserendo ostiola globosa, sublævia, ad dimidium prominula corticem interiorem elevant, qui erumpens format discum planum irregulari-subrotundum, 1–2 lin. latum, colore et substantia omnino corticis interioris.

73. **D. Chorostate syngenesia** (Fr.) Fuck. Symb. myc. p. 204. *Sphæria syngenesia* Fr. Syst. Myc. II, p. 382, p. p. *Sph. Frangulæ* Pers. in Cooke Handb. n. 2448. *Valsa syngenesia* Fr. Summa Veg. Sc. p. 411. — Stromate e basi plerumque orbiculari conoideo, apicem versus coarctato, ligno adnato, concentrice striatulo, atro, intus fusco, latit. circiter 2 mill.; peritheciis in singulo stromate 5–9, monostichis, sphæroideis, atris, ostiolis exsertis, in corpus s. discum corrugatum connatis instructis; ascis sessilibus, cylindraceo-clavatis, 54–58 ≃ 7–9, octosporis; sporidiis distichis, fusoideo-elongatis, utrinque appendiculo brevi, setiformi ornatis, vulgo rectis, chlorino-hyalinis, 4-guttulatis, 12–16 ≃ 3–4. 2425

Hab. in ramis exsiccatis Rhamni Frangulæ in Britannia, Suecia, Germania, Belgio, Gallia, Helvetia, Italia, Fennia, Lapponia. — Sæpius in ramis decorticatis libera occurrit. Stromata apice ostiolis deciduis albido-umbilicata.

74. **D. Chorostate Taleola** (Fr.) Sacc. F. Ven. Ser. IV, p. 12. *Melanconis Taleola* Speg. Add. Myc. Ven. n. 77. *Aglaospora Taleola* Tul. Carp. II. p. 168. *Valsa Taleola* Fr. S. M. II, 391. *Sphæria Taleola* Fr. S. M. II, 301. *Valsa Taleola* Fr. Sum. V. S. p. 411. 2426

— Laxe circumscripta, stromate corticali, perithecis in centro confertis, disco albo, ostiolis punctiformi-immersis lævibus; ascis cylindraceis, oblique breviter stipitatis, 8sporis, 152 ≃ 14; sporidiis oblique monostichis, oblongo-ovatis, utrinque subobtusis, distincte uniseptatis, medio constrictis, loculis uni-biguttulatis, utrinque unimedio 3-appendiculatis, appendiculis filiformibus, sporidium subæquantibus, hyalinis, 18–24 ≃ 7–9. — Status spermog. et conid. *Libertellæ* et *Myxosporii* species sistunt. Cfr. Tul. et Fuck.

Hab. in ramis corticatis Quercus dejectis in Suecia, Gallia, Germania, Britannia, Belgio, Italia. — Pustulæ subrotundæ v. ellipticæ, cortici interiori innatæ, depressæ, superne epidermide tectæ, qua sublata patet stroma corticale in superficie pallide testaceum (ab epidermide coloratum). Perithecia numerosa, exigua. Ostiola in disco sparsa, pauca, prominula, *V. niveæ* admodum similia.

75. **D. Chorostate oxyspora** (Peck) Sacc. *Valsa oxyspora* Peck 28 Rep. in the St. Mus. New York t. II, f. 26–29. — Pustulis sparsis, subconicis, erumpentibus, extus nigricantibus, epidermide substellatim fissa cinctis; perithecis ligno dealbato lineaque nigra circumscripto infossis; ostiolis paucis brevibus; ascis octosporis; sporidiis stipatis v. distichis, oblongo-ellipticis medio leniter constrictis, 1-septatisque, 4-nucleatis, 15 μ. long., appendicula setacea utrinque auctis. 2427

Hab. in ramis quercinis, Sandlake Amer. bor.

76. **D. Chorostate nidulans** Niessl Notiz. Pyr. p. 49. — Stromate e corticis parenchymate immutato formato, haud elevato, e peridermio fisso erumpente; perithecis 4–9 sine ordine monostiche stipatis, vel subcircinantibus, in corticis parte interiori nidulantibus, subglobosis, compressis, ostiolis convergentibus dense stipatis vel concrescentibus mox elongatis mox abbreviatis cylindraceis angustis; ascis lanceolatis subsessilibus, 24–30 ≃ 6; sporidiis 8, distichis cuneato-fusoideis seu inferne attenuatis, plerumque curvatis utrinque obtusis, mucronatis, non constrictis, 4 guttulatis, minutis, hyalinis 8–10 ≃ 2½. 2428

Hab. in sarmentis siccis Rubi Idæi et R. fruticosi pr. Graz Styriæ. — Var. *exigua* Niessl l. c.; minor, ostiolis non exertis; sporidiis 6–7 ≃ 2. In sarmentis Rubi cæsii, Voitsberg.

77. **D. Chorostate obscura** (Peck) Sacc. *Valsa obscura* Peck 28 Rep. on the St. Mus. New York. — Pustulis minutis, ligno immersis, erumpentibus; ostiolis 3–8, leniter prominulis; ascis subcylindricis; sporidiis stipatis v. biseriatis, obscure subexcentrice 1-septatis (con- 2429

tinuisve?), oblongis, una extremitate acutioribus, utrinque setulâ auctis, hyalinis, 7-8 μ. longis.

Hab. in sarmentis Rubi strigosi, Albany Amer. bor. — Setulæ sporidiorum facile prætereundæ. Epidermis supra acervulos solite stellatim fissa.

78. **D. Chorostate Saccardiana** J. Kunze F. sel. exs. n. 123 [1876] (absque diagnosi). — Peritheciis in acervulos valseos intus zona nigra circumscriptos subcircinantibus globulosis, atris, $^1/_3$ mill. diam., collis convergentibus ostiolis obtusiusculis discrete subcirculari-erumpentibus; ascis fusoideis, subsessilibus, aparaphysatis, octosporis, 90-100 ≃ 9-10; sporidiis distichis fusoideis constricto-1-septatis, 15-4,5-5, utrinque mucronulo dein decedente ornatis, 4-guttatis, hyalinis. 2430

Hab. in ramis Ulmi campestris emortuis, Eisleben Germaniæ. — Habitus exterior fere *D. Tesserœ.*

79. **D. Chorostate perjuncta** Niessl Hedw. 1878, p. 44 (sub nomine *conjunctæ* jam usurpato) Hedw. 1876 p. 153. — Stromate discreto subvalseo, sed e corticis parenchymate pallescente, strato angusto cincto, formato, semiimmerso, subpustulato; peritheciis, 5-12 in singulo stromate, aggregatis, innatis, subglobosis vel mutua pressione angularibus, majusculis, 300-500 μ. d., collis brevibus (perithecii diam. paulo longioribus) ostiolis minutis vix superantibus, nunc disciformi-erumpentibus, nunc solitariis; ascis lanceolato-clavatis, subsessilibus, 64-80 ≃ 8-9; sporidiis 8, distichis clavato-fusoideis, rectis v. sæpe inæquilateralibus, medio vix constrictis, 1-(3?)-septatis, hyalinis, utrinque obtusiusculis, mucronatis, 13-15 ≃ 4. 2431

Hab. in ramis Ulmi campestris, Stralsund in Germania (Rabenhorst). — An eadem ac præcedens?

80. **D. Chorostate Tessella** (Pers.) Rehm Ascom. n. 176. *Cryptosporà Tessella* (Pers.) Karst. Myc. Fenn. II, p. 79. *Sphæria Tessella* Pers. Syn. p. 48. *Valsa Tessella* (Pers.) Fr. Summa V. S. p. 411. — Stromate cortici omnino innato basique ligno adnato, valseo, strato extimo atro, lineam subflexuosam nigram, peridermium subpenetrantem efficiente undique cincto, parte centrali superiori erumpente atrofusca excepta, substantia corticis immutata formato; peritheciis in singulo stromate 4-6, plerumque 5, inordinate circinantibus, sphæroideis, collabentibus, stromate corticali immersis basique ligno subinnatis; ostiolis solitariis, per peridermium erumpentibus, superficialibus, circinatis vel in quincuncem sparsis, junioribus convexis, nitidis, deinde umbilicatis; ascis subsessilibus, 2432

elongatis, utrinque attenuatis 135–140 ≃ 21–26, p. sporif., 125 μ. long., octosporis; sporidiis tristichis vel subdistichis, fusoideo-elongatis, utrinque subtiliter breviterque appendiculatis, curvatis, uniseptatis (rarissime 3-septatis?) ad septum medium vix vel levissime constrictis, hyalino-chlorinis 40–60 ≃ 7–9, paraphysibus guttulatis (genuinis?).

Hab. in ramis corticatis Salicis in Suecia, Fennia, Germania et Belgio.

81. **D. Chorostate glyptica** (B. et Curr.) Sacc. *Valsa glyptica* B. et Curr. North Am. Fungi n. 866. Cooke Valsei U. S. pag. 120. — Epidermide tecta, nigro-cincta, ostiolis vix perforantibus; sporidiis fusiformibus subinde sigmoideis, uniseptatis, 45–55 μ. long. 2433

Hab. in ramis Salicum, Carolina infer. Amer. bor. — Peraffinis nisi eadem ac *D. Tessella.*

82. **D. Chorostate mucronata** (Peck) Sacc. *Valsa mucronata* Peck, 28 Rep. on the St. Mus. New York t. II, f. 10–13. — Peritheciis 4–8 aggregatis, majusculis, cortice interiore nidulantibus, linea nigra circumscriptis; ostiolis discrete erumpentibus, nec discum formantibus, prominulis, nigris; ascis, clavato-lanceolatis, crassis, octosporis; sporidiis stipatis, majusculis, cylindraceis, curvulis, uniseptatis, non constrictis, hyalinis, 40–50 μ. long., solite utrinque breve mucronatis. 2434

Hab. in ramis emortuis Salicum, Sandlake Amer. bor. — *D. Tessellæ* affinis nisi eadem.

83. **D. Chorostate galericulata** (Tul.) Sacc. *Valsa galericulata* Tul. Carp. II, pag. 203. — Stromatibus corticolis, disco obtuso, albido erumpente, ostiolis 8–10 rotundis nigris punctulato; ascis ovato-oblongis octosporis; sporidiis distichis lanceolatis, curvulis, 1-septatis, utrinque breve aristatis, hyalinis, 19–23 ≃ 6,5. — Spermogonia (*Fusicoccum*): spermatiis fusoideis 6–10 ≃ 3,5–4. 2435

Hab. in ramis corticatis Fagi sylvaticæ prope Versailles Galliæ.

C) Dubiæ v. non rite cognitæ.

84. **D. Chorostate chrysoides** (Tul.) Sacc. *Valsa chrysoides* Tul. Carp. III, pag. 107. — Peritheciis hinc inde valsoideo-confertis, in stromate conidiophoro, subcutaneis, lageniformibus, carnosulis, carneo-auratis (extus?), ostiolis concoloribus vix erumpentibus; ascis linearibus 100–130 ≃ 7, subsessilibus octosporis non v. spurie para- 2436

physatis; sporidiis monostichis, breviter ovatis, utrinque obtusis, medio constricto-1-septatis 10 ≃ 6,5 hyalinis. Conidia v. spermatia intra stroma generata ovato-oblonga 3-4 μ. longa, basidiiis 30 μ. longis suffulta.

Hab. in ramis emortuis Cytisi Laburni prope Versailles Galliæ. — Ob colorem et mollitiem peritheciorum dubia.

85. **D. Chorostate convexa** (Pr.) Sacc., *Sphæria* (obtectæ) *convexa* Pr. Fungi Hoyersw. n. 300. — Gregaria, epidermide tecta; perithecis globoso-depressis, convexis, atris, intus albis; collo prominulo crasso; ascis clavatis, octosporis; sporidiis subfusiformibus, diblastis, albis; parphysibus nullis. (Perithecia ad basin sæpe concava). 2437

Hab. ad ramulos Salicis, Hoyerswerda Germaniæ. — « An diversa a *D. salicella?* »

86. **D. Chorostate castriformis** (Pr.) Sacc., *Sphæria* (versatiles) *castriformis* Pr. Fungi Hoyersw. n. 290. — Seriatim erumpens; stromate conico-obtuso, basi latissimo, crustaceo-dilatato, simplex vel confluens; subiculo latissime effuso, atro, intus cinereo-fusco; disco depresso et margine acuto cincto; perithecis subglobosis, subaggregatis; ostiolis distantibus, exsertis, spinulosis, scabris; ascis clavatis; sporidiis octonis fusiformibus, 2-(3?)-locularibus albis. 2438

Hab. in ramis exsiccatis frondosis, Hoyerswerda Germaniæ.

87. **D. Chorostate? phomospora** (C. et E.) Sacc., *Valsa phomaspora* C. et E. New Jersey Fungi Grev. VI, p. 10, t. 95, f. 12. — Pustulis ellipsoideis, erumpentibus; perithecis atris globosis, in collo attenuatis, tectis; ostiolis convergentibus, cylindraceis, atris, vix conspicuis; ascis clavatis; sporidiis anguste ellipticis, rectis, phomatoideis, primum binucleatis, hyalinis, 10-12 μ. long. 2439

Hab. in ramis Myricæ, New Jersey Amer. bor.

88. **D. Chorostate innata** (B. et C.) Sacc., *Valsa innata* B. et C. North Amer. Fungi n. 874. — Pustulis subcorticalibus planis; peritheciis circa discum elevatum circinantibus; ostiolis disco elevato brevi abditis; ascis filiformibus; sporidiis oblongis, utrinque acutiusculis, 7-8 μ. long. 2440

Hab. in ramis corticatis Castaneæ vescæ in montibus New York Amer. bor.

89. **D. Chorostate? tortuosa** (Fr.) Sacc., *Sphæria tortuosa* Fr. S. M. II, p. 395, *Sph. Hystrix* var. B. Nees Syst. fig. 329, B. — Pustulata, peritheciis globosis aggregatis, ostiolis fasciculatis subcylindricis inæqualibus obtusis subdivergentibus. 2441

Hab. ad cortices ramorum in Suecia et Germania. — Perithecia globosa, glabra, lævia, conferta, in orbem cortici interiori immersum disposita, pustula corticali prominula tecta. Ostiola intra pustulam convergunt, fasciculatim erumpunt, brevia, subdivergunt, læviuscula, elongata, deflexa, subnodosa, habitu *Calosphæriæ Principis*.

90. **D. Chorostate? ciliata** (Pers.) Sacc., *Sph. ciliata* Pers. Syn. p. 35, Nees Syst. f. 329, Fr. S. M. II, p. 394. — Pustulata, peritheciis ovatis convergentibus, ostiolis subsetaceis acutis divaricatis subflaccidis. 2442

Hab. ad cortices Ulmi et Alni in Suecia et Germania. — Perithecia subdena, erecto-convergentia, in ostiolum attenuata, circinantia in cortice interiori nidulantur, pustula subrotunda minori corticali prominente tecta. Ostiola tenuissima, ciliæformia, longitudine varia (circiter 1–2 lin.), lævia, dein e gelatina profluente subnodosa.

II. *Euporthe* Nits.: peritheciis gregariis ligno superficie tandem denigrato intusque nigro-circumscripto immersis.

A) In Dicotyledoneis arboreis.

91. **D. Euporthe Eres** Nits. Pyr. Germ. p. 245. — Stromate latissime effuso ramosque ambiente, cum cortice coalito ejusque superficiem tandem nigrificante, in lignum subpositum alte penetrante, limitibus nigris semper circumscripto; peritheciis minutissimis, globosis, ligni strato extimo infossis, in collum pertenue, corticem perforans abrupte attenuatis; ostiolis plus minus elongatis, tenuissime cylindricis vel rarius nodosis, plerumque secundis vel varie flexuosis, condenso grege erumpentibus ac rami superficiem setosam reddentibus; ascis cylindrico-clavatis, octosporis, sessilibus, 50–56 ≃ 9; sporidiis subdistichis, fusiformibus, obtusis, rectis vel inæquilateralibus, bicellularibus, quadriguttatis, parum constrictis subhyalinis, 13–14 ≃ 4. — Spermogonia phomatoidea: spermatiis ellipsoideis 6–7 ≃ 3, biguttatis; basidiis? (stylosporis Nits.) curvatis 33 ≃ 1. 2443

Hab. in ramis emortuis Ulmi campestris in Germania, Italia et Gallia. — Adest mihi forma corticola ostiolis brevioribus, an e sect. *Tetrastagæ* species nova?

92. **D. Euporthe Malbranchei** Sacc. Mich. I, p. 509. — Stromate late effuso corticem interiorem lignique superficiem infuscante lineaque nigra intra lignum limitato; peritheciis sparsis v. hinc inde gre- 2444

gariis ligno immersis v. semiimmersis, globosis, majusculis, $^3/_4$ mill. diam., ostiolis breve cylindraceis v. conoideis; ascis cylindraceo-fusoideis, subsessilibus, 60–70 ≃ 10, apice, lumine 2-foveolato, obtusatis, aparaphysatis, octosporis; sporidiis distichis, oblongo-2-conicis, utrinque primo minute apiculatis, dein muticis, medio constrictis, 12–15 ≃ $4^1/_2$–5, 4-guttatis, hyalinis.

Hab. in ramis decorticatis v. libro vestitis Ulmi campestris in Gallia. — A *Diap. Ere* Nits. et *D. Saccardiana* Kunze, Ulmum pariter habitantibus, diversa.

93. **D. Euporthe sordida** Nits. Pyr. Germ, p. 252. — Stromate, effuso, peridermio haud decolorato, tecto v. sæpius, peridermio dejecto, corticis nudatam superficiem colore ex sordide fuscescente tandem nigricante tingente maculasque formante ambitu vario, irregulari, opacas, sordidas, intusque lineis tenuissimis atris undique limitato; peritheciis exiguis, ligni strato extimo omnino immersis, globosis v. sæpius depressis, ordine maxime vario dispositis, mox remotissimis, mox contra dense gregariis, in collum brevissimum abrupte attenuatis; ostiolis minutis, sed pro ratione crassis parum elongatis, conicis v. cylindricis, immo ventricoso-nodosis, apice rotundatis, rectis vel curvatis, solitarie vel gregatim erumpentibus; ascis clavatis vel oblongis, sessilibus, octosporis, 55–60 ≃ 8–10; sporidiis distichis vel submonostichis, fusiformibus vel oblongis, utrinque obtusis, immo rotundatis, pallide lutescentibus, bicellularibus, bi- vel quadriguttatis, sæpe medio constrictis, 13–14 ≃ 3–4. — Spermogonia phomatoidea: spermatiis 8–10 ≃ 2–2,5 biguttatis, basidiis hamatis 27 ≃ 1. 2445

Hab. in ramis corticatis decorticatisque Carpini Betuli, prope Münster et Cappenberg Germaniæ et Treviso Italiæ bor.

94. **D. Euporthe Aucubæ** Sacc. Fungi Ven. Ser. V, p. 201 et Mich. I, p. 390, *Sphæria insularis* Berk. in Curr. Comp. Sphær. n. 212, fig. 210, verisimiliter, sed non Nits. — Stromate ramulos, cortice relaxato, hinc inde ambiente, lineaque nigra in ligni superficie et profunditate excurrente limitato, peritheciis globulosis, gregariis, $^1/_3$ mill. diam., ligno infossis, ostioloque vix emergente; ascis fusoideis, 45–48 ≃ 7–8, aparaphysatis, octosporis; sporidiis distichis, oblongo-fusoideis, 14–16 ≃ 3–$3^1/_2$, constricto-1-septatis, 4-guttulatis, hyalinis. — St. spermog. *Phomam Aucubæ* Sacc. sistit. 2446

Hab. in ramis emortuis Aucubæ japonicæ, Susegana, Ital. bor., Rouen Galliæ, Forden Britanniæ.

95. **D. Euporthe abdita** Sacc. et Speg. Mich. I, p. 391. — Stromate 2447

ramos corticatos late ambiente et superficiem parum infuscante, linea nigra tortuosa per lignum immutatum excurrente limitato; peritheciis ligno immersis, globulosis, majusculis, $^1/_2$ mill. diam., ostiolis peridermium perforantibus et vix superantibus, obtusis; ascis clavato-cylindraceis, 70-80 ≃ 10, apice rotundatis, breve crasseque stipitatis, aparaphysatis, octosporis; sporidiis distichis oblongo-didymis, 15 ≃ 5, utrinque obtusiusculis, 4-guttulatis, hyalinis.

Hab. in ramis emortuis Meliæ Azedarach, Susegana, Ital. bor. et in Argentina Amer. austr.

96. **D. Euporthe orientalis** Sacc. et Speg. Mich. I, p. 391. — Stromate ramos corticatos decorticatosque late ambiente, eosque varie infuscante, linea nigra per lignum varie excurrente limitato; peritheciis gregariis, ligno immersis, $^1/_4$ mill. diam., globulosis, ostiolo apice rotundato, vix emergente; ascis fusoideis, apice obtusioribus, 45-50 ≃ 7, aparaphysatis, octosporis; sporidiis distichis v. oblique monostichis, fusoideis, 15-17 ≃ $2^1/_2$-3, medio constrictis, 1-septatis, 4-guttulatis, septulis spuriis 2 accedentibus, hyalinis. 2448

Hab. in ramis emortuis Mori albæ, Susegana, Ital. bor. et prope la Recoleta Argent. Amer. austr. (Spegazzini, utrinque!). — Forma americana præbet ascos 55-65 ≃ 8-10, sporidia 12-15 ≃ 4-5.

97. **D. Euporthe sociabilis** Nits. Pyr. Germ. p. 263. — Stromate plerumque latissime effuso ramosque longe ambiente, cortici lignoque omnino immerso, strato tenui, atro undique circumscripto, peridermio arcte adhærente, tandem obscurato tecto; peritheciis minutis, ordine subæquali, hinc inde in series longitudinaliter directas, parallelas, distributis, denseque sociatis, v. rarius 2-4 stipatis, e globoso mox depressis, sectione verticali ovalibus ligni strato supremo totis immersis, membrana pertenui, molli, fusca structis, in collum brevissimum abrupte attenuatis; ostiolis crassis, cylindricis, apice rotundatis, poroque solito ampliore tandem apertis, peridermium perforatum parum tantum superantibus; ascis anguste clavatis v. subcylindricis, octosporis, sessilibus, 66-80 ≃ 8-10; sporidiis distichis, rarius oblique monostichis, fusiformibus, utrinque obtusis v. acutiusculis, bicellularibus, guttulis mox 4 tantum, mox pluribus gravidis, medio sæpe parum constrictis, immo anisomeris, rectis v. inæquilateralis, subhyalinis, 17-21 ≃ 5. 2449

Hab. in ramis emortuis Mori rubræ, Cappenberg Germaniæ.

98. **D. Euporthe spiculosa** (Alb. et Schw.) Nits. Pyr. Germ. p. 256, *Sphæria spiculosa* Alb. et Schw. Nisk. p. 16, *Valsa circumscri-* 2450

pta (Fr.) Mont. Syll. Crypt. n. 764, *Valsa tortuosa* Fuck. Nass. p. 55. — Stromate diatrypeo, mox late effuso ramosque ambiente, mox contra breviore, maculæformi, immo valseo, cortice arcte adhærente v. sæpius relaxato tecto, rarius nudato lignique superficiem colore sordide nigricante tingente, intusque undique nigrolimitato; peritheciis exiguis, subglobosis, ligni strato extimo omnino infossis v. sæpius semiimmersis tantum, parte superiore plus minus extante, ordine vario distributis, mox laxe sparsis, mox dense ac monostiche, immo subcircinatim stipatis, tunc stroma exacte valseum referentibus; ostiolis plus minus elongatis, cylindricis sed basin versus sensim incrassatis, sub cortice soluto sæpe longissimis ac tenuissimis, decumbentibus, flexuosis, hinc inde nodulosis, adhærentem contra corticem plerumque conjunctim perforantibus, brevioribus, rectiusculis; ascis subcylindricis v. anguste clavatis, octosporis, sessilibus, 45–60 ≃ 7–9; sporidiis distichis v. rarius oblique monostichis, anguste fusiformibus, bicellularibus, quadriguttatis, vix unquam constrictis, plerumque rectis, 12–15 ≃ 3. — Spermogonia phomatoidea: spermatiis ovato-oblongis, 8 ≃ 3–4, biguttatis.

Hab. in ramis emortuis Sambuci racemosæ et nigræ in Germania, Gallia, Britannia, Italia, Suecia, Belgio et Amer. bor.

99 **D. Euporthe tropicalis** Speg. Fungi Argent. I, p. 182. — Stromate ramos late ambiente per lignum leniter infuscatum vel immutatum, sinuose excurrente, nigro-limitato; peritheciis in cortice vel ligno nidulantibus, confertissime gregariis, globosis $^1/_4$–$^1/_3$ mill. diam.; ostiolis brevibus, cylindraceis, superficiem epidermidis subimmutatæ attingentibus, non exertis; ascis fusoideo-clavatis, 45 ≃ 8–10, octosporis, aparaphysatis; sporidiis distichis, oblongis, medio 1-septatis, constrictis, utrinque obtusiuscule rotundatis, 12–14 ≃ 4–5, quadriguttulatis, hyalinis. 2451

Hab. in ramulis emortuis dejectis Bauhiniæ grandifloræ a la Recoleta, Argent. Amer. merid.

100. **D. Euporthe tumulata** C. et E. G. 34. — Sparsa; peritheciis distinctis, ligno sub-immersis, brunneis; ostiolo peridermium perforante elongato; ascis clavatis; sporidiis lanceolatis, quadrinucleatis demum uniseptatis, hyalinis, 12 ≃ 5. 2452

Hab. in ramis Coryli americanæ, New Jersey Amer. bor. — Linea nigra stromatica per lignum excurrit et peritheciorum greges circumscribit.

101. **D. Euporthe valida** Nits. Pyr. Germ. p. 262. — Stromate mox late effuso, plagas magnitudine et forma maxime varias, hinc inde 2453

ambientes occupante mox brevissimo, immo peritheciis ostiolis arctissime stipatis valseum æmulante, ligno corticique immerso, strato extimo tenuissimo, nigricante circumscripto, peridermio adhærente, haud decolorato, tecto; peritheciis grandiusculis, globosis v. mutua pressione compressis, rarius laxe ac sine ordine distributis, sæpissime vero 4–20, immo pluribus densissime stipatis, monostichis, v. fere distichis, collis haud raro convergentibus, ligno omnino solitoque altius infossis, in collum abrupte attenuatis; ostiolis plus minus elongatis, validis, aliis abbreviatis cylindricis, apice rotundatis, aliis longioribus et apicem versus attenuatis, tunc varie flexuosis v. curvatis, nodulosis v. deformibus, raro solitarie, multo sæpius 4–20 v. pluribus conjunctim erumpentibus; ascis oblongis v. clavatis, octosporis, 50–56 ≃ 10; sporidiis subdistichis, fusiformibus, utrinque obtusiusculis, bicellularibus, guttulis mox 2–4, mox contra pluribus fœtis, medio tandem constrictis, lutescentibus, 14–16 ≃ 5.

Hab. in ramis crassioribus emortuis Myricæ ceriferæ in Horto botanico Münster Germaniæ.

102. **D. Euporthe viticola** Nits. Pyr. Germ. p. 264. — Stromate brevi, plagas minutas in rami longitudinem extensas, ovales, ellipticas v. irregulares, hinc inde confluentes occupante, intus nigrolimitato, v. ligni superficiem maculis, atris, opacis aspergente, corticis libro fibroso primum omnino tecto deinde sæpe nudato; peritheciis exiguis, depresse subglobosis, stromati alte immersis, plerumque in series longitudinaliter directas, breves, plerumque simplices ordinatis, mox dense stipatis mox distantibus, in collum longiusculum subito attenuatis; ostiolis basin versus sensim incrassatis, conicis v. plus minus elongatis, tenuissime cylindricis, nodulosis, rectis v. varie flexuosis, per libri rimis angustis ordine lineari erumpentibus; ascis anguste clavatis, octosporis, 60 ≃ 7–8; sporidiis distichis subfusiformibus vel sæpius clavæformibus, bi- cellularibus, haud constrictis, sæpissime parum curvatis, hyalinis, 10–12 ≃ 3. 2454

Hab. in sarmentis Vitis viniferæ prope Münster Germaniæ et prope Treviso Italiæ borealis.

103. **D. Euporthe Badhami** (Curr.) Sacc., *Diatrype Badhami* Curr. Linn. Trans. XXII, t. 46, f. 80, Cooke Handb. n. 2446. — Peritheciis subsolitariis v. aggregatis, penitus ligno immersis, peridermio intus denigrato; ostiolis perforatibus, rugulosis; ascis teretifusoideis breve stipitatis, octosporis; sporidiis distichis, fusoideis utrinque acutis appendiculaque setacea auctis, 4-nucleatis, hyalinis, 12,7–15 μ. longis (sine setulis). 2455

Hab. in ramis Prini glabri, New Jersey Amer. bor. (Ellis) et in ramis in Britannia (Currey). — Habitus *D. inæqualis.*

104. **D. Euporthe subpyramidata** (B. et C.) Sacc., *Eutypa subpyramidata* B. et C. North Amer. Fungi n. 858. — Effusa; peritheciis nigerrimis subpyramidatis exasperantibus; ascis lanceolatis, deorsum acutioribus; sporidiis biconicis; loculis elongatis. 2456

Hab. in Quercu in Carolina sup. Amer. bor. — An e sect. *Tetrastagœ?*

105. **D. Euporthe spinosula** Karst. Myc. Fenn. II, p. 111. — Stromate ligno leviter immerso vel fere superficiali, plus minus effuso, forma et magnitudine vario, atro, plerumque 2–3 cent. long., 1,5–2 cent. lat.; peritheciis strato ligni extimo fusco insidentibus, densissime stipatis, plus minus protuberantibus, subsphæroideis, vel pressione mutua angulatis, mediocribus, ostiolis parum elongatis, crassiusculis sursum obconice dilatatis, rugosis, immo quadrisulcatis, interdum cylindraceis et sublevibus; sporidiis oblongatis, obtusis, 4-guttulatis, chlorino-hyalinis, 14–22 ≃ 5–6. 2457

Hab. in ligno Quercus denudato vetusto in insula Runsala Fenniæ. — Habitu *Eutypam spinosam* (Pers.) nonnihil æmulatur. Asci et paraphyses in speciminibus exoletis non adsunt. An affinis *D. subpyramidatæ.*

106. **D. Euporthe Quilmensis** Speg. Fungi Arg. Pug. IV, n. 156. — Stromate late per ramulos corticatos excurrente, lignum immutatum v. vix cinerascentem relinquente, linea stromatica, sæpe ægre visibili, circumscripto; peritheciis inordinate sparsis, globulosis, 250–300 μ. diam., ligno totaliter immersis, ostiolo parvulo corticem perforante ac non v. vix prominulo, atro, lævi, carbonaceo donatis; ascis fusoideis, 50–60 ≃ 10–13, octosporis, aparaphysatis; sporidiis distichis, ellipticis, utrinque obtuse rotundatis, 15–16 ≃ 5–6, medio 1-septato-constrictis, loculis grosse 2-guttulatis, hyalinis. 2458

Hab. in ramis dejectis putrescentibus Lucumæ neriifoliæ in nemorosis uliginosis prope Quilmes, Argent. Amer. bor.

107. **D. Euporthe pulla** Nits. Pyr. Germ. p. 246, Sacc. Myc. Spec. p. 140, t. XIII, fig. 72–64, *Sph. spiculosa* var. Fr. El. Fung. II, 75. — Stromate plus minus late effuso; Hederæque sarmenta, cortice dejecto, mox longe lateque superficie nigrificante mox maculis tantum, forma et magnitudine maxime variis, tandem aterrimis marmorante intusque limitibus nigris undique circumscripto; peritheciis perexiguis, globosis v. depressis, in ligni strato, extimo 2459

nigrefacto proximo immersis, laxe ac plerumque subæqualiter sparsis, in collum tenue breveque subito attenuatis; ostiolis elongatis, breviusculis, cylindricis v. nodulosis, basim versus sæpissime sensim incrassatis, ideo subconicis, plerumque rectis ac matricis superficiem asperam reddentibus; ascis anguste clavatis v. oblongis, octosporis, 36–40 ≃ 5–6; sporidiis distichis v. rarius oblique monostichis, angustissime fusiformibus v. subcylindricis, haud constrictis, rectis, bicellularibus, quadriguttatis, hyalinis, 9–12 ≃ 2–3. — Status spermogonicus sistit *Phomam pullam* Sacc. (*Ph. Hederæ* Fuck. ? nec Desm.).

Hab. in truncis et sarmentis tandem decorticatis Hederæ Helicis in Gallia, Germania, Italia et Britannia.

108. **D. Euporthe fallaciosa** Nits. Pyr. Germ. p. 254. — Stromate, peritheciis hinc inde dense stipatis, valseum simulante, ramos juniores ambiente, crassiores maculis aspergente, ambitu irregulari, vario, corticis superficiem, peridermio facile solubili tectam v. tandem nudatam nigrificante, cortice vero jam pridem secesso, lignum ipsum colore ex fusco sordide nigricante tingente parte, immersa nigrolimitato; peritheciis majusculis, basi applanatis, convexis v. depresse conicis, ligni superficiei impositis, cortice solum tectis vel ligni strato extimo, tenuissimo, pustulato-elevato, hinc inde spurio velatis, ordine subæquali v. sæpius gregatim sparsis, in collum brevissimum, tenuissimum abrupte attenuatis; ostiolis plerumque valde elongatis ac tenuissime cylindricis, nodulosis, varie flexuosis, sæpissime per peridermii rimas communes conjunctim erumpentibus; ascis oblongis v. subcylindricis, octosporis, 50–56 ≃ 8–10; sporidiis distichis, fusiformibus, acutiusculis, plerumque rectis, bicellularibus, quadriguttatis, hyalinis, haud constrictis sed sæpius parum anisomeris, 12–14 ≃ 4. 2460

Hab. in ramis Aceris Pseudoplatani et A. campestris, Cappenberg, Œstrich, Eisleben Germaniæ. — Ostiolis longis, flexuosis etc. a *D. protracta* distinguenda.

109. **D. Euporthe protracta** Nits. Pyr. Germ. pag. 255. Sacc. Myc. Ven. Spec. p. 141, t. XIII, fig. 65–67. — Stromate plerumque latissime effuso, corticis superficiem ex fusco nigrificante peridermio arctissime adhærente tecto, v. multo rarius, peridermii particulis hinc inde excussis, ex parte tandem nudato; stratoque extimo, nigricante circumscripto; peritheciis magnitudine varia, globosis v. sæpius depressis, sectione verticali ovalibus, ligni strato extimo omnino immersis in series longitudinaliter directas, plus minus elon- 2461

gatas, fere parallelas, rectiusculas v. varie flexuosas densius ordinatis, in collum brevissimum subito attenuatis; ostiolis nunc peridermium perforatum v. rimose fissum vix superantibus nunc parum elongatis, conicis, crassiusculis, solitariis v. 3–8 ordine lineari dense stipatis ac conjunctim erumpentibus; ascis anguste oblongis v. subclavatis, octosporis, 52–60 ≃ 8–9; sporidiis distichis, raro monostichis, anguste oblongis v. subcylindricis, utrinque obtusis, bi-cellularibus, quadriguttatis, tandem parum constrictis v. torulosis, hyalinis, 10–15 ≃ 3–4.

Hab. in ramis emortuis Aceris campestris in Germania, Britannia, Italia boreali.

110. **D. Euporthe petiolorum** Sacc. et Sp. Mich. I, p. 388. — Stromate petiolis plagulas oblongas nigras hinc inde efficiente, lineaque nigra intus limitato; peritheciis ligno infossis, gregariis, globulosis, $^1/_3$ mill. diam., ostiolo cylindraceo perforante et parum exerto; ascis fusoideis, 50–55 ≃ 6–7, aparaphysatis, octosporis; sporidiis distichis, oblongis, 12–14 ≃ 3–$3^1/_2$, constricto-1-septatis, 2–4-guttulatis, hyalinis. 2462

Hab. in petiolis languidis Catalpæ syringifoliæ, Conegliano, Ital. bor.

111. **D. Euporthe nigricolor** Nits. Pyr. germ. p. 260 Sacc. Myc. Ven. Spec. p. 141, t. XIII, fig. 68–71. — Stromate plus minus late effuso, ramulos ambiente v. sæpius maculis brevioribus, irregularibus varie confluentibus marmorante, primo peridermio relaxato, ostiolis perforato tecto, deinde in plerisque nudato, superficieque atrato intus vero strato tenuissimo, atro circumscripto; peritheciis exiguis, e globoso mox depressis, sectione verticali ovalibus, ligno supremo omnino immersis nec protuberantibus laxe sparsis, in collum abrupte attenuatis; ostiolis e basi sensim conico-incrassatis tenuissime cylindricis, plus minus sed plerumque parum tantum elongatis; ascis anguste clavatis, oblongis v. subcylindricis, octosporis, 53–56 ≃ 7–9; sporidiis subdistichis, rarius oblique monostichis, fusiformibus, bicellularibus, bi-quadriguttatis, medio constrictis, utrinque acutiusculis, subhyalinis, 16 ≃ 5. Spermogonia nota. 2463

Hab. in ramis emortuis Rhamni Frangulæ in Germania et Italia boreali.

112. **D. Euporthe meridionalis** Sacc. Mich. I, p. 387. — Stromate ramos corticatos varie ambiente, lineaque tortuosa nigra per lignum excurrente limitato; peritheciis globulosis, ligno infossis, $^3/_4$ mill. diam., ostiolo peridermium perforante vix emergente; ascis fusoi- 2464

deis, 55 ≃ 10, aparaphysatis, octosporis; sporidiis distichis oblongo-fusoideis, medio leniter constrictis, 15 ≃ 4½-5, 1-septatis, 4-guttulatis, hyalinis.

Hab. in ramis Paliuri aculeati, Montebelluna, Ital. bor.

113. **D. Euporthe geographica** Fuck. Symb. myc. App. II, p. 38. — 2465
Stromatibus illis *Diaporthi controversæ* similibus, maculas irregulariter elongatas, limitatas, atro-fuscas formantibus, in ligno linea nigra circumscriptis; peritheciis spermatiiferis in stromatis superiori parte natis, immersis, minutis, globosis; spermatiis ovato-oblongis, biguttulatis, continuis, 10 ≃ 3; peritheciis ascigeris in stromate sordido profunde immersis, globosis, nigris, collo vix prominulo, cylindraceo; ascis lanceolatis, 8sporis, 64 ≃ 8-9; sporidiis sub distichis, fusiformibus, 4guttulatis, uniseptatis, hyalinis, 10-12 ≃ 4-6

Hab. in ramis siccis adhuc stantibus Syringæ vulgaris, pr. Biebrich Germaniæ.

114. **D. Euporthe medusæa** Nits. Pyr. germ. p. 251. — Stromate ef- 2466
fuso v. subvalseo plagas mox late effusas ramosque ambientes mox breviores irregulares, varie confluentes formante, cortice haud decolorato, facile solubili tecto, ligni superficiem nigrificante v. crustam aterrimam, verruculosam, interruptam sistente, intus nigrolimitato; peritheciis subglobosis v. depressis, immo a latere compressis, ligno plus minus profunde immersis, mox dense stipatis mox sine ordine sparsis v. solitariis majusculis, collo brevi, tenui instructis; ostiolis tenuissime cylindricis v. nodulosis, maxime elongatis, flexuosis, in ligni superficie prostratis, tamquam repentibus cortice omnino tectis v. eum apicibus solum perforantibus, stromatibus subvalseis, sæpe radiatim expansis; ascis subcylindricis anguste clavatis v. oblongis, octosporis, 46-52 ≃ 7, sporidiis subdistichis, fusiformibus, acutiusculis v. obtusis, haud constrictis, rectis vel inæquilateralibus, pallide fuscescentibus, 2-(4?)-cellularibus, 10-13 ≃ 3.

Hab. in ramis emortuis Cytisi Laburni, Cappenberg Germaniæ.

115. **D. Euporthe fasciculata** Nits. Pyr. Germ. p. 247. Sacc. Myc. 2467
Ven. Spec. p. 140, t. XIII, f. 62-64. *Sphæria spiculosa* Auctorum p. p. — Stromate in ramis corticatis, plagas mox maxime extensas, ambientes mox contra, et quidem sæpius, maculas irregulares breves, immo brevissimas, solitarias v. confluentes formante, ligni superficiem nigrificante, parte immersa nigrolimitato; peritheciis ligno plus minus alte immersis, plerumque gregatim densius nidu-

lantibus, majusculis, globosis, rarius depressis v. mutua pressione angulatis, in collum tenue abrupte attenuatis; ostiolis elongatis, cylindricis, rarius basin versus incrassatis v. nodosis, sæpissime flexuosis, plerumque fasciculatim erumpentibus; ascis cylindrico-clavatis v. anguste oblongis, 53-66 ≃ 8-9; sporidiis distichis, fusiformibus obtusiusculis, constrictis, plerumque rectis, bicellularibus quadriguttatis, hyalinis v. pallide coloratis, 12-14 ≃ 3-4. — Spermogonia phomatoidea; spermatiis 8-10 ≃ $2^1/_2$-3, biguttatis, hyalinis basidiis 20 ≃ 1 denique curvatis fultis.

Hab. in ramis dejectis Robiniæ Pseudacaciæ in Gallia, Germania, Italia, Amer. merid.

116. **D. Euporthe forabilis** Nits. Pyr. Germ. p. 259. Sacc. Myc. Ven. 2468
Spec. p. 141. — Stromate, effuso, plerumque maculas breviores immo brevissimas, irregulares sistente, mox cum cortice peridermioque arctissime adhærente coalito, tecto, mox, cortice dejecto, in ligno nudato libero, ejusque superficiem denigrante v. corticem residuum in crustam aterrimam mutante, intusque nigrolimitato; peritheciis grandiusculis, plerumque totis ligno infossis, rarius parte superiore in corticem projectis, immo ligno basi tantum adnatis, globosis v. depressis, ordine vario sed plerumque laxe sparsis; ostiolis crassis subcylindricis, corticem, ubi adest, parum tantum aut omnino non superantibus, cortice dejecto elongatis, rectis v. adscendentibus; ascis subcylindricis v. anguste clavatis, octosporis, 52-70 ≃ 7-10; sporidiis distichis, anguste fusiformibus v. subcylindricis bicellularibus, quadriguttatis, medio tandem constrictis, pallide lutescentibus, 14-20 ≃ 3-4.

Hab. in ramis emortuis Salicis capreæ et babylonicæ et Populi pyramidalis in Germania et Italia.

117. **D. Euporthe Floresiana** Speg. F. Argent. Pug. II, n. 71. — Stro- 2469
mate ramulos corticatos late ambiente per lignum immutatum tortuose excurrente, nigro-limitato; peritheciis globosis, atris totaliter immersis vel subimmersis et parum corticem tumefacentibus, discretis, rarius subaggregatis, $^1/_4$ mill. diam., ostiolo papillato minutissimo, atro, epidermidem vix perforante ornatis; ascis oblongo-fusoideis apice rotundatis crasseque tunicatis, luce refracta bifoveolatis, 50-55 ≃ 7-8; sporidiis distichis cylindrico-fusoideis, 13-15 ≃ 3-$3^1/_2$, utrinque obtuse acuminatis, medio constricto-1-septatis, 4-guttulatis, hyalinis.

Hab. in Argentina, S. José de Flores, in ramulis dejectis Metrosideri in hortis.

118. **D. Euporthe extorris** Sacc. Mich. I, p. 30. — Peritheciis cortice immutato tectis, ligno omnino v. ad medium immersis, globosis, nigris, linea stromatica nulla manifesta limitatis; ostiolo cylindraceo-conoideo, peridermium vix superante; ascis subclavatis, 80 ≃ 12, subsessilibus, apice subtruncatis lumineque bifoveolato, aparaphysatis, octosporis; sporidiis distichis vel oblique monostichis, oblongo-fusoideis, 16-18 ≃ 7-8, rectis, curvulisve, utrinque obtusiusculis, medio constricto-1-septatis, 4-guttulatis, hyalinis. 2470

Hab. in ramis corticatis Chimonanthi fragrantis Padova, Ital. bor. — Ad *Tetrastagam* nutat.

119. **D. Euporthe culta** Sacc. et Sp. Mich. I, p. 389. — Stromate ramos primo corticatos late ambiente, dein cortice secesso, ligni superficiem infuscante v. nigrificante; peritheciis ligno, lineola nigra obsoleta circumscripto, infossis, globulosis, 1/3 mill. diam., ostiolis cylindraceis peridermium primo perforantibus, parumque excedentibus; ascis cylindraceo-fusoideis, obtusiusculis, 40-50 ≃ 5, aparaphysatis, octosporis; sporidiis distichis oblongis, constricto-1-septatis, utrinque acutiusculis, 4-guttulatis, hyalinis. 2471

Hab. in sarmentis emortuis Jasmini officinalis in hortis, Selva, Ital. bor.

120. **D. Euporthe cryptica** Nits. Pyr. Germ. p. 265 Sacc. Myc. Spec. p. 141, t. XIII, fig. 72-75. — Stromate, plerumque breviter effuso, rarius ambiente, cortice rimoso, arido, tecto sæpeque omnino velato, ligno supposito superficie maculis e fusco nigricantibus, ambitu et magnitudine maxime variis, irregularibus maculato intusque strato marginali, atro undique limitato; peritheciis globosis, raro mutua pressione angulatis, majusculis, sine ordine sparsis, hinc inde 2-3 dense stipatis, parte inferiore tantum ligno plus minus alte immersis, superiore vero v. ostiolo tantum corticis tunicam inferiorem perforantibus; ostiolis crassis, nodosis v. ventricosis, plus minus elongatis ac sæpissime curvatis v. decumbentibus; ascis clavatis, octosporis, 54 ≃ 7-8; sporidiis distichis, fusiformibus v. subcylindricis, utrinque obtusis, medio tandem constrictis, rectis v. parum curvatis, bicellularibus, quadriguttatis, pallidis, 12-15 ≃ 3-4,5. — Spermogonia phomatoidea; spermatiis 7-8 ≃ 2; basidiis (stylosporis Nits.) filiformi-curvatis 33 ≃ 1. 2472

Hab. in sarmentis emortuis Loniceræ Periclymeni, L. Caprifolii, L. Xylostei in Germania, Gallia, Italia et New Jersey Americæ borealis.

121. **D. Euporthe crassicollis** Nits. Pyr. Germ. p. 258. — Stroma- 2473

te plus minus late effuso sed plerumque breviore, maculæformi, v. peritheciis hinc inde congestis ostiolisque fasciculatim erumpentibus, valseum simulantibus; peridermio adhærente tecto, parte immersa nigrolimitato, in superficie obscurato, fuscescente; peritheciis magnitudine media, globosis, mutua pressione hinc inde angulatis v. rarius depressis, ligni strato supremo plerumque totis immersis raro plus minus protuberantibus, gregatim sparsis v. 2–4, immo pluribus dense ac submonostiche stipatis; ostiolis elongatis, crassis, cylindricis sed in plerisque nodosis v. basim versus bulboso-incrassatis, immo deformibus, rectiusculis, curvatis v. prostratis; ascis clavatis v. oblongis, octosporis, membrana apicem versus incrassata structis, 40 ≃ 8; sporidiis distichis, anguste fusiformibus, bicellularibus, quadriguttatis, haud constrictis, hyalinis, 12–14 ≃ 3.

Hab. in ramis Corni sanguineæ in Germania et Italia.

122. **D. Euporthe rhynchophora** H. Fab. Sphér. Vaucl. p. 76, t. I, fig. 3–4. — Peritheciis in ligno nigrificato nidulantibus et series longitudinales efformantibus, globosis, atris, $^1/_4$ mill. circiter latis; ostiolo elongato, curvato, atro, nitido, lævi, vel nodùloso squamoso, apice marginato papillatoque, 1 mill. circ. longo; ascis lanceolatis, sessilibus, 8-sporis, 45–50 ≃ 8; sporidiis distichis, oblongo-lanceolatis, hyalinis, 4-guttatis, 16 ≃ 4. 2474

Hab. ad ramos exsiccatos Coronillæ minimæ, cum Cucurbitariâ elongatâ, Vaucluse Galliæ.

123. **D. Euporthe Coronillæ** (Desm.) Sacc. F. Ven. Ser. IV, pag. 13 (spermog.) et Ser. V, p. 181 (ascoph.) *Sphœria* (Phoma) *Coronillæ* Desm. Ann. Sc. nat. 1840, XIII, p. 188 sistit statum spermogonicum. — Stromate linea nigra per lignum profunde excurrente limitato; peritheciis sparsis, ligno semiimmersis, globoso-lenticularibus, $^1/_2$ mill. diam., atris, ostiolo peridermium immutatum vix superante, cylindraceo-conoideo, ascis fusoideis, 70 ≃ 10, aparaphysatis, 8sporis, sporidiis distichis v. oblique monostichis, oblongis, 14 ≃ 5–6, constricto-1-septatis, 4-guttatis, hyalinis. 2475

Hab. in ramis Coronillæ Emeri putrescentibus, Selva Treviso, Ital. bor. (Sacc.) et Vaucluse Galliæ (Fabre).

124. **D. Euporthe Castrensis** Sacc. et Sp. Mich. I, p. 388. — Stromate ramulos decorticatos longe lateque ambiente et superficie atro-inquinante; peritheciis globulosis, $^1/_3$ mill. diam., ligno infossis, gregariis, ostiolis nunc punctiformibus nunc breve exertis; ascis fusoideis 60–70 ≃ 10, aparaphysatis, octosporis; sporidiis distichis, fu- 2476

soideis, 1-septatis, lenissime constrictis, 15–17 ≃ $3^1/_2$–$4^1/_2$, 4-guttulatis, hyalinis.

Hab. in ramulis Capparidis rupestris ad castrum S. Salvadore, Susegana, Ital. bor. — *Diaporthi pullæ* Nits. affinis.

125. **D. Euporthe brachyceras** Sacc. F. Ven. Ser. IV, p. 11. — Stro- 2477
mate ramulos hinc inde ambiente, latiusculo v. maculiformi, zona nigra per lignum subimmutatum tortuose excurrente limitato; peritheciis discretis v. sæpius in soros subvalseos aggregatis, ligno fere omnino immersis, sphæroideis v. e mutua pressione angulosis, $^3/_4$–$^1/_2$ mill. diam., atris, ostiolis cylindraceis perithecio longioribus peridermium immutatum hinc inde fasciculatim perforantibus exertisque; ascis fusoideis 45 ≃ 8, 8sporis; sporidiis distichis, fusoideis, 14–15 ≃ 3–4, constricto-1-septatis utrinque plerumque brevissime apiculatis, 4-guttulatis, hyalinis.

Hab. in ramis Ligustri vulgaris in sylva Montello Treviso, Ital. bor. — *D. spiculosæ* affinis sed satis distincta.

126. **D. Euporthe biglobosa** (C. et E.) Sacc. *Sphæria* (obtectæ) *bi-* 2478
globosa C. et E. Grevill. VII, p. 9. — Epidermide nigrificata tecta; peritheciis depressis; ascis cylindraceis; sporidiis uniseriatis, ellipticis, uniseptatis, profunde constrictis, hyalinis, 14 ≃ 7, cellulis globosis.

Hab. in ramis Lauri Sassafras, New Jersey Am. bor.

127. **D. Euporthe australis** Sacc. et Speg. Mich. I, p. 29. — Peri- 2479
theciis sparsis ligno subimmutato immersis v. saltem basi infossis, et tunc cortice parum mutato partim exceptis, linea nigra sinuosa per lignum excurrente limitatis, globosis; ostiolo cylindraceo vix peridermium superante; ascis fusoideis, 50–60 ≃ 7–10, aparaphysatis, octosporis; sporidiis distichis v. oblique monostichis breviter fusoideis, 14–16 ≃ $3^1/_2$–5, medio constrictis, 1–(3?)-septatis, septis extimis tenuioribus spuriisque, 4-guttulatis, hyalinis.

Hab. in ramis putrescentibus Celtidis australis, Conegliano, Italiæ borealis. — Ad sectionem *Tetrastagæ* quoque vergit.

128. **D. Euporthe americana** Speg. Mich. I, p. 457. — Stromate hinc 2480
inde ramos ambiente, per lignum immutatum excurrente, nigro-limitato; peritheciis 3-7 in eadem macula stromatica laxe-gregarie insidentibus, ligno infossis, $^1/_6$–$^1/_8$ mill. diam., atris, ostiolo plus vel minus longo recto vel curvulo, cylindraceo, corticem perforante ornatis; contextu tenuissime membranaceo-parenchymatico, fuligineo; ascis oblongo-fusoideis, aparaphysatis, 55–60 ≃ 7–8, granuloso-oleoso-farctis; sporidiis..... immaturis visis.

Hab. in ramulis emortuis Magnoliæ grandifloræ, Susegana, Ital. bor.

129. **D. Euporthe parabolica** Fuck. Symb. Myc. p. 211. — Stromate 2481
subcorticali, late effuso, ramulos totos occupante; peritheciis in ligno nidulantibus, plerumque sparsis, majusculis, globosis, collo exserto, plerumque parabolico, atro; ascis oblongis, 8sporis, 44 ≃ 8; sporidiis distichis, lanceolato-oblongis, medio constrictis, 1-(3?)-septatis, 2-4guttulatis, hyalinis, 9 ≃ 5.

Hab. in ramulis siccis corticatis Pruni spinosæ, quos omnino investit, in Jura Helvetiæ (Morthier). — Ostiolo longo, sæpius parabolico mox dignoscitur.

130. **D. Euporthe Fuckelii** Kunze F. sel. exs. n. 139 (absque diagno- 2482
si), Rehm. Ascom. n. 374. — Stromate late effuso peridermium denique denigrante, lineaque nigra per lignum excurrente limitato; peritheciis gregariis ligno immersis, globulosis; ostiolis teretiusculis, peridermium perforantibus, breveque spinuloso-emergentibus, obtusiusculis; ascis fusoideo-oblongis, subsessilibus, 45 ≃ 9, subinde coalescentibus, octosporis; sporidiis breve fusoideis utrinque obtusiusculis, 11-13 ≃ 3,5-4,5, rectis, uniseptatis non v. vix constrictis, 2-4-nucleatis, hyalinis, subinde mucoso-obvolutis.

Hab. in ramis emortuis Spirææ ulmifoliæ, Eisleben Germaniæ.

131. **D. Euporthe Sorbariæ** Nits. Pyr. Germ. pag. 261. — Stromate 2483
plus minus late effuso, peritheciis 3-8 sæpissime dense ac monostiche stipatis ostiolisque erumpentibus approximatis, immo fasciculatis, valseum fere æmulante, strato extimo obscuriore, nigricante limitato ac peridermio haud dissolubili, plerumque obscurato tecto; peritheciis minutis, globosis, depressis v. mutua pressione angulatis, ligno plerumque totis immersis; ostiolis mox abbreviatis, peridermium perforatum parum tantum superantibus, crassiusculis, cylindricis, apice rotundatis, mox vero e basi sensim conico incrassata elongatis, tenuibus, flexuosis, nodulosis, ascis anguste clavatis v. cylindricis, octosporis, 50-56 ≃ $6^1/_2$-7; sporidiis distichis, anguste fusiformibus, bicellularibus, bi-quadriguttatis, haud constrictis, pallide lutescentibus, 14-17 ≃ 3-4. — Spermogonia phomatoidea; spermatiis fusoideis 7-9 ≃ 2,5, biguttatis; basidiis 17-20 μ. longis.

Hab. in trunculis emortuis Spirææ (Sorbariæ) sorbifoliæ pr. Münster Germaniæ.

132. **D. Euporthe simulans** Sacc. Fungi Ven. Ser. IV. p. 11. — Stro- 2484

mate ramulos arcte corticatos late ambiente per lignum immutatum tortuose excurrente et nigro-limitato; peritheciis gregariis remotiusculis vel hinc inde 2–5 in soros subvalseos coadunatis, ligno omnino immersis, e globoso depressis, $^3/_4$ mill. diam., tenuimembranaceis, atris; ostiolis cylindraceo-conoideis, epidermidem immutatam perforantibus et apicibus exertis, acutiusculis exasperantibus; ascis fusoideis, copiosis, 60 ≃ 8, 8sporis; sporidiis distichis, obtuse fusoideis, 14–15 ≃ 4–4$^1/_2$ utrinque subtruncatis, 4-guttulatis tandem tenuiter 1-septatis, hyalinis.

Hab. in ramis maioribus Rosæ caninæ et R. centifoliæ in Italia boreali et Argentina Amer. austr.

133. **D. Euporthe japonica** Sacc. Fungi Ven. Ser. IV, p. 11. — Peritheciis $^1/_2$ mill. diam., ascis 45–50 ≃ 7–9; sporidiis distichis v. oblique monostichis, 14–15 ≃ 4; cætera *D. simulantis*, cujus forte varietas habenda. — Status spermogonicus: spermogoniis sub epidermide nidulantibus, minutis, nigris, oblongo-lenticularibus quandoque zona nigra plagulas limitante circumdatis; spermatiis ovoideis, 6 ≃ 3, hyalinis, 2-guttulatis, sterigmatibus filiformibus 20 ≃ 1, dein uncinatis suffultis. 2485

Hab. in ramis Kerriæ japonicæ prope Treviso Ital. bor.

134. **D. Euporthe semiimmersa** Nits. Pyr. Germ. p. 253. — Stromate mox latissime effuso, ambiente, mox brevi, maculas sistente forma et magnitudine varias, remotas v. confluentes, peridermio ostiolis numerosis, vix exstantibus pertuso, ceterum immutato, primo arcte adhærente tecto, deine maxima ex parte nudato, cum corticis parenchymate coalito ac in superficie nigrefacto, intus strato atro, tenui circumscripto; peritheciis minutis, globosis v. depressis, sæpissime a latere compressis v. e basi applanata subconicis v. hemisphæricis ligni strato extimo omnino v. multo sæpius parte inferiore tantum infossis immo ligni superficiei basi adnatis, ordine inæquali ac plerumque laxe sparsis, in collum pertenue et brevissimum abrupte attenuatis; ostiolis exiguis, brevissimis, subconicis, corticis (v. peridermii) superficiem exasperantibus; ascis oblongis v. clavatis, octosporis, plerumque 56–60 ≃ 9–13; sporidiis distichis, fusiformibus, obtusis, rectis, bicellularibus, constrictis v. torulosis, subhyalinis, 14–16 ≃ 3$^1/_2$–5. 2486

Hab. in trunculo Cratægi Oxyacanthæ pr. Cappenberg Germaniæ et pr. Treviso Ital. bor. — Affinis *D. sordidæ*.

135. **D. Euporthe Coëmansii** Nits. Pyr. Germ. p. 257, *Ceratostoma rostratum* Rabh. Fungi Eur. n. 256, nec Tode. — Stromate effuso, 2487

in ramulis junioribus ambiente, in crassioribus vero sæpe breviore, maculæformi, primo peridermio ostiolis perforato, ceterum haud decolorato tecto, deinde, ubi nudato, matricis superficiem atro-infuscante stratoque nigricante circumscripto; peritheciis perexiguis, subglobosis, mutua pressione angulatis v. sæpius depressis, rarius ligni strato supremo totis immersis v. basi plus minus applanata adnatis, sæpius vero parte inferiore ligno plus minus alte infossis, superiore cortice persistente velatis, dispersis, sæpissime vero 2–4 magis approximatis; ostiolis elongatis exacte cylindricis v. apice parum attenuatis v. nodulosis, pro ratione crassiusculis, rectis v. flexuosis, subinde fasciculatim erumpentibus; ascis anguste clavatis v. subcylindricis, octosporis, 36 ≃ 7; sporidiis distichis, fusiformibus v. subcylindricis bi-cellularibus, rectis v. parum curvatis, hyalinis, haud constrictis, 8–10 ≃ 2–2½.

Hab. in sarmentis siccis Rubi fruticosi prope Gand Belgii (Coemans) et prope Münster Germaniæ (Nitschke).

136. **D. Euporthe ceuthosporioides** (Berk.) Sacc., *Sphæria ceuthosporioides* Berk. Engl. Fl. V, p. 258, Cooke Handb. n. 2691. — Stromate phyllogeno maculiformi suborbiculari, rufescente, linea nigra circumscripto; peritheciis tectis, 6–10 subsparsis, utrinque prominulis; ostiolis minutis perforantibus; ascis oblongis; sporidiis oblongis 1–(?)-septatis. 2488

Hab. in foliis Pruni Laurocerasi prope Edinburgh Britanniæ. — Maculæ stromaticæ 3–5 mill. latæ.

137. **D. Euporthe samaricola** Ph. et Plowr. Grev. III, p. 126, t. 42, f. 6. — Peritheciis minutis, immersis, stromate maculiformi, nigro, versiformi circumscriptis, ostiolis minutis prominulis; ascis fusoideis 75 ≃ 10; sporidiis distichis, subinde acuminatis, quadrinucleatis, 17–18 ≃ 5, hyalinis. 2489

Hab. in samaris dejectis Fraxini, Terrington Britanniæ.

138. **D. Euporthe griseo-tingens** (B. et C.) Sacc., *Sphæria griseo-tingens* B. et C. North Amer. Fungi n. 941. — Minuta sublinearis prominula, ostiolis punctulata; ascis clavatis; sporidiis fusiformibus inæquilateralibus, hyalinis, 20 μ. long. 2490

Hab. in ramis Juniperi virginianæ, Pensylvania Americæ borealis.

139. **D. Euporthe pinophylla** Plow. et Phil. Grev. IV, p. 124, t. 62, fig. VII. — Peritheciis sparsis, subinde 2–3 aggregatis, sub crustula stromatica, effusa, nigra infossis; ostiolis elongatis, apice abrupte 2491

truncatis; ascis fusoideis 25 μ. long.; sporidiis biseriatis, lanceolatis, acutis, hyalinis, 4-guttatis, uniseptatis, 17–18 ≃ 5.

Hab. in acubus dejectis Pini sylvestris, Belmont Hereford Britanniæ. — Asci ex icone 45–55 μ. longi.

140. **D. Euporthe conorum** (Desm.) Niessl in Hedw., 1876, pag. 2. 2492
Sphæria (subtecta) *conorum* Desm. 13 Not. 1846, p. 76. — Peritheciis subgregariis, immersis, linea circumscriptis et macula atra subnitida tectis, dein suberumpentibus epidermide cinctis; nucleo griseo; ascis subclavatis 50 μ. long.; sporidiis minutissimis, ovato-oblongis, biserialibus, 2-4-guttatis, hyalinis, 8 μ. longis.

Hab. in squamis conorum Pini sylvestris in Gallia, Germania et Belgio. — *Diaporthe occulta* Fuck. ostiolis rostellatis differt.

141. **D. Euporthe occulta** (Fuck.) Nits. Pyr. Germ. p. 266, *Valsa* 2493
occulta Fuck. Fungi rhen. n. 622, *Sph. conorum* West. nec Desm. (teste Niessl), *Sph. strobilicola* Lib. ined. — Stromate effuso, conorum squamis putrescentibus immerso easque in superficie colore ex fusco nigricante tingente, intus vero a squamæ substantia specie haud mutata formato sed strato atro limitato; peritheciis minutis, globosis sparsis, substrato omnino immersis et, ubi protuberantibus, tamen ab ejus strato supremo, tenui obductis; ostiolis per poros v. rimulas erumpentibus, plerumque maxime elongatis, tenuissime cylindricis, apicem versus parum attenuatis, curvatis, inflexis; ascis clavatis, octosporis, 44–48 ≃ 6–7; sporidiis distichis v. rarius oblique monostichis, fusiformibus, rectis v. parum curvatis, bicellularibus, quadriguttatis, haud constrictis, hyalinis, 12–16 ≃ 3. — Spermogonia phomatoidea; spermatiis oblongo-ovatis, 2-guttatis, 7 ≃ 3, hyalinis.

Hab. in squamis conorum et putridorum Abietis excelsæ, Cupressi sempervirentis in Germania, Gallia, Britannia, Italia et Belgio.

B) In Dicotyledoneis herbaceis.

142. **D. Euporthe Berkeleyi** (Desm.) Nits. Pyr. Germ. p. 273, *Sphœ-* 2494
ria Angelicæ Berk.? in Cooke Handb. n. 2649, *Sphæria Berkeleyi* Desm. Ann. Scienc. nat. 1837, VIII, p. 358, *Sphæria Angelicæ* Fuck. Symb. p. 113. — Stromate effuso, in substrati superficie maculas, mox breves, irregulares, hinc inde confluentes, mox multo latiores, caulesque longe ambientes, ex fusco v. cinereo nigricantes efficiente, parte immersa in ligno medullaque ipsa, specie omnino

non mutata formato; peritheciis perexiguis, globosis vel a latere parum compressis, ordine subæquali in series longitudinaliter directas dispositis, omnino immersis, membrana tenui, nigricante structis, in collum brevissimum constrictis; ostiolis minutissimis punctiformibus, parum prominulis, hemisphæricis v. subconicis; ascis anguste oblongis v. subcylindricis, octosporis, 46–60 ≃ 5–7; sporidiis subdistichis, fusiformibus, utrinque obtusiusculis, rectis, hyalinis, bicellularibus, bi-quadriguttatis, 10–13 ≃ 3–4.

Hab. in caule emortuo Angelicæ sylvestris, Torilis, Cerefolii, Heraclei, Ferulaginis in Britannia, Belgio, Italia, Fennia. — Cl. Cooke negat in litt. identitatem plantæ Berkeleyi cum specie Nitschkei, et forte non immerito.

143. **D. Euporthe fœniculacea** Niessl in Thuem. Contr. Mycol. Lusit. 2495
n. 285. — Stromate effuso, caulis superficiem ambiente et colore sordide fusco vel nigricante tingente; peritheciis disseminatis, laxe seriatis, depresso-globosis, minutis, ostiolo brevi crassoque, conico, obtuso, prominulo; ascis lanceolato-clavatis, sessilibus, octosporis, 38–42 ≃ 8; sporidiis distichis, oblongo-fusiformibus, rectis vel parum inæquilateralibus, utrinque obtusiusculis, medio septatis et bi-quadriguttulatis, hyalinis, 9–11 ≃ 2,5–3.

Hab. ad caules aridos Fœniculi officinalis, Coimbra Lusitaniæ (P. G. Mesnier). — *Diaporthæ nigrella* Niessl proxima sed diversa: rostris retusis, brevioribus et crassioribus, sporidiis multo minoribus. Etiam a *Diaporthe Berkeleyi* et *Diaporthe inquilina* optime distinguenda. Quoad *Sph. fœniculaceam* Mont. cfr. Syll. nostra n. 1711.

144. **D. Euporthe picea** (Pers.) Sacc., *Sphæria picea* Pers. sec. Mont. 2496
in Fl. Alg. p. 484. — Maculæformis, effusa, sæpe confluens, epidermide adnata, tecta; peritheciis sparsis, subglobosis, subprominulis, mollibus, matrici semiimmersis, stromate piceo tectis, intus albidofarctis, astomis, tandem evacuatis pertusis, vel ostiolo brevi interdum longiusculo instructis; ascis clavatis; sporidiis octonis oblongis subbiserialibus, 1-(3?)-septatis. — Maculas sistis valde inæquales 1–2 centimetra et ultra longas.

Hab. ad caules siccos Magydarios tomentosæ, Ferulæ, Fœniculi et Acanthi mollis in Algeria. — «*Sphæria picea* Pers. Icon. et descr. t. X, fig. 7–8 (in Atropa Belladonna) potius *D. Chailletii* spectat».

145. **D. Euporthe nigrella** (Auersw.) Niessl Beitr. p. 51, Michel. II, 2497
p. 317, *Læptosphæria nigrella* Auersw. Myc. Eur. Pyr. tab. 12,

fig. 163, nec *Sphæria nigrella* Fries. — Caulicola; stromate late effuso, tenuissimo, ambiente, peridermium sordide purpureo-atrum vel violaceo-fuscum tingente, peritheciis gregariis, sæpe seriatim dispositis, immersis, minutis, 300 μ. diam., globosis coriaceo-submembranaceis, fusco-atris, ostiolo elongato cylindraceo, sæpe curvato, protuberante, 700 μ. longo; ascis oblongis, late rotundatis, subsessilibus, membrana interna apice incrassata, 8sporis, 32–46 ≃ 6, sporidiis distichis rarius oblique monostichis, ample seu oblongo-fusiformibus utrinque acutiusculis sæpe inæquilateralibus, hyalinis, 9–11 ≃ 3–4, sæpissime 3-guttatis.

Hab. in caulibus exsiccatis Eryngii campestris in Styria et Gallia. — *Sph. nigrella* Fr. verisimiliter est *Leptosphæria*, etsi maculâ quasi *Diaporthes* prædita sit.

146. **D. Euporthe tetraspora** Sacc. Mich. II, p. 250. — Peritheciis 2498
gregariis caule superficie tandem infuscato immersis, globulosis, $^1/_3$–$^1/_2$ mill. diam., nigris ostiolis spinuliformibus, emergentibus, perithecii diametrum subæquantibus; ascis tereti-clavulatis, 50–55 ≃ $7^1/_2$–$8^1/_2$, apice rotundatis, 2-foveolatis, aparaphysatis, tetrasporis; sporidiis oblique monostichis ovato-oblongis, 14–16 ≃ 5–$5^1/_2$, subinæquilateralibus, 3-guttulatis, continuis, hyalinis.

Hab. in caule emortuo Eryngii amethystini, in collibus prope Vittorio, Ital. bor. — A *Diap. nigrella* (Auersw.) differt sporidiis quaternis, ascis sporidiisque paulo amplioribus. Paraphyses veræ nullæ.

147. **D. Euporthe denigrata** Wint. in Kunze Fungi Sel. exs. n. 354 2499
et 355 (sine diagnosi). — Stromate plagas atras, sinuosas in caulis superficie hinc inde formante; peritheciis gregariis majusculis globosis, ligno immersis; ostiolis perforantibus et punctiformi-prominulis; linea nigra stromatica interiore vix ulla; ascis clavato-fusoideis 46–50 ≃ 5–7, octosporis; sporidiis distichis ovato-fusoideis, 8–10 ≃ 3,6–4, uniseptatis, non v. vix constrictis, rectiusculis, hyalinis.

Hab. in caulibus aridis Angelicæ et Dauci prope Zürich Helvetiæ.

148. **D. Euporthe Faberi** Kunze Fungi Sel. exs. n. 266 (sine diagnosi). 2500
— Stromate caules late ambiente, superficieque nigrificante; peritheciis laxiuscule gregariis globosis, ligno immersis, ostiolis epidermidem perforantibus, papillatoque prominulis; ascis clavato-fusoideis, 40–45 ≃ 7–8; sporidiis octonis distichis breve fusoideis, rectiusculis 9–10 ≃ 3–3,5 tenuiter 1-septatis, non constrictis, 4-guttatis hyalinis.

Hab. ad caules aridos Laserpitii latifolii, sociis spermogoniis, prope Freiburg Germaniæ.

149. **D. Euporthe inquilina** (Wallr.) Nits. Pyr. Germ. p. 272, *Sphæria inquilina* Wallr. Crypt. p. 779. — Stromate plerumque effuso atque ambiente, caulis superficiem colore ex fusco sordide et opace nigricante tingente, intusque strato extimo, tenui, atrato, limitato; peritheciis minutis, globosis v. globoso-depressis, substrati strato extimo totis immersis, ordine inæquali sed plerumque laxe sparsis, membrana pertenui, ex fusco nigricante structis, in collum brevissimum abrupte attenuatis; ostiolis minimis, prominulis, conicis v. rarius abbreviatis, hemisphæricis, dein poro pro ratione latiusculo pertusis; ascis anguste clavatis v. oblongis, octosporis, 33–40 ≃ 5–7; sporidiis distichis, fusiformibus, rectis, hyalinis, bicellularibus, quadriguttatis, 11–13 ≃ 2–3. 2501

Hab. in caulibus emortuis Heraclei Sphondylii in Germania, Britannia, Italia. — **D. uliginosa* Sacc. [*D. inquilina* Speg. Arg. IV, n. 153]; ascis 50–55 ≃ 8–10; sporidiis subellipticis, obtusis 14–15 ≃ 2–5, constricto-1-septatis. In caule Conii maculati in Argentina Amer. merid.

150. **D. Euporthe Eburensis** Sacc. Mich. II, p. 60. — Stromate late effuso, caulis superficiem nigrificante, zona nigra infra haud limitato; peritheciis dense gregariis, ligno immersis, $^1/_3$ mill. diam., globulosis, ostiolis conoideis breve extantibus matricemque asperulam reddentibus; ascis fusoideis, 70 ≃ 10–11, apice lumine bifoveolato, aparaphysatsi, octosporis; sporidiis distichis fusoideis, utrinque obtusiusculis curvulis, 15–16 ≃ 4, constricto-1-suptatis, raro spurie 3-septatis, 4-guttulatis, hyalinis. 2502

Hab. in caulibus Leucanthemi vulgaris, Julio, in regione Eburensi (*Eure*) Galliæ (Malbranche). — A *Diap. Arctii* (Lasch) sporidiis majoribus et constrictis ostiolisque abbreviatis obtusis differt; a *D. immersa* Nits. et *D. orthocerate* sporidiis curvis, constrictis, paulo majoribus; a *D. lineari* (Nees) linea stromatica nulla, ostiolis brevibus etc.

151. **D. Euporthe grammodes** (De Not.) Sacc. *Sphæria grammodes* De Not. Micr. ital. Dec. II, p. 74, fig. IV. Herb. myc. n. 1940. — Peritheciis caule insculptis v. immersis, discretis v. contiguis, subseriatis, minutis, globoso-pyriformibus, in ostiolum erumpens, papillatum desinentibus; ascis subclavatis, 40 ≃ 6,5, aparaphysatis, octosporis; sporidiis fusoideis rectis, curvulisve 4-guttatis, hyalinis, 12–14 ≃ 2,7–3. 2503

Hab. ad caules siccos Artemisiæ vulgaris prope Milano. Ital. bor. — Stroma nullum manifestum.

152. **D. Euporthe orthoceras** (Fr.) Nits. Pyr. Germ. p. 270, Sacc. Myc. Ven. Spec. p. 142, t. XIV, f. 1-4, *Sphæria orthoceras* Fr. Elench. II, p. 97, *Sphæria Achilleæ* Auersw. Herb. Myc. n. 1448. — Stromate effuso, mox brevi, maculæformi, mox contra caules ambiente substrati superficiem tandem nigrificante, parte immersa linea nigra circumscripta; peritheciis minutis, subglobosis v. globoso-depressis, ordine vario sparsis, sæpissime gregatim stipatis, ligno immersis, in collum breve abrupte attenuatis; ostiolis plus minus elongatis, basim versus conico-incrassatis, rectis v. curvatis, tunc sæpe secundis, hinc inde nodulosis; ascis oblongis v. clavatis, octosporis, 36-50 ≃ 6-8; sporidiis distichis, fusiformibus, plerumque rectis, bicellularibus, haud constrictis, quadriguttatis, hyalinis, 10-14 ≃ 3-4. — Spermogonia phomatoidea: spermatiis 8-10 ≃ 2,5, 2-guttatis, basidiis 26 ≃ 1, hamatis. 2504

Hab. in caulibus emortuis Achilleæ, Lapsanæ, Cichorii, Senecionis, Verbesinæ, Asteris, Helianthi in Gallia, Germania, Italia, Britannia, Am. mer. et bor. — Forma *Helianthi* (Ital. bor.) fert ascos 50 ≃ 10; sporidia 12 ≃ 5, lenissime constricta.

153. **D. Euporthe trinucleata** Niessl Not. Pyr. p. 52, t. IV, fig. 26. Stromate maculiformi, plerumque elongato, caulium superficiem nigrificante, parte interiori a parenchymate vix diverso; peritheciis plus minusve stipatis, sæpe seriatis, ligni strato extimo immersis, depresso-globosis, rostratis, atris, duriusculis, $^1/_3$ mill. circa diam.; ostiolis e basi conoidea subcylindricis vertice conicis, peritheciorum diametrum æquantibus vel superantibus; ascis clavatis sessilibus 8-sporis 45-54 ≃ 8-9; sporidiis distichis, oblongis, plerumque parum cuneatis, seu inferne paulum attenuatis, inæquilateralibus sæpe fere cymbiformibus, rarissime subrectis, utrinque obtusiusculis breve mucronatis, hyalinis, 3-nucleatis (2-septatis?) vix constrictis, 13-15 ≃ 4-4$^1/_2$. 2505

Hab. in caulibus exsiccatis Eupatorii cannabini prope Gratz Styriæ.

154. **D. Euporthe pholeodes** (Mont.) Fuck. Symb. mycol. App. III, p. 24, *Sphæria pholeodes* Mont. Syll. Crypt. n. 830 et Notice etc., in Ann., 2, I, p. 339, t. 12, fig. 4. — Immersa, linea nigra circumscripta; peritheciis globosis nigris in ligno caulis nidulantibus ostiolo brevi subconico in macula cinerea vix prominulo; ascis fusiformi-subclavatis; sporidiis cymbiformibus, 4-nucleatis. 2506

Hab. in caulibus emortuis Bardanæ, Oly prope Sedan Galliæ (Montagne), in caule Cirsii palustris prope Œstrich Germaniæ (Fuckel).

155. **D. Euporthe perexigua** Sacc. Fungi Ven. Ser. IV, p. 10. — Stromate hinc inde caulem breviter ambiente et lignum subdealbatum penetrante, nigrolimitato; peritheciis minutissimis, globoso-depressis, $^1/_5$ mill. diam., atris, ligno omnino immersis, gregariis vel hinc inde crebrioribus, ostiolis cylindraceis, epidermidem non decoloratam perforantibus parumque excedentibus; ascis fusoideis 40–50 ≃ 7–8, 8sporis; sporidiis distichis oblongis, 12 ≃ 3–4, utrinque obtusiusculis, medio tandem leniter constrictis, 4-guttulatis, hyalinis. — Spermogoniis sub epidermide nidulantibus, atris, socio fungo ascophoro; spermatiis fusoideis, curvulis, deorsum attenuatis, 6–8 ≃ 3, crassiuscule 2-guttatis, hyalinis, sterigmatibus filiformibus, usque 32 ≃ 1, apice uncinatis suffultis. 2507

Hab. in caulibus Carlinæ vulgaris in sylva Montello, Ital. bor. — Proxima *Diaporthi Arctii*, a qua differt stromate caulis superficiem non atroinquinante, ostiolis vix emergentibus punctiformibus, sporidiis rectis medio dein constrictis et crassioribus.

156. **D. Euporthe linearis** Nits. Pyr, Germ. p. 277, *Sphæria linearis* Nees in Fr. S. M. II, p. 529. — Stromate latissime effuso, caulem sæpe longissime ambiente, stratoque nigricante interiore, usque ad medullam centralem descendente limitato, superficiem tantum inquinante, immo maculis tandem aterrimis aspergente; peritheciis minutis, globosis v. depressis, nunc sine ordine sparsis, nunc contra, et quidem sæpius, secundum ligni fibras tractu lineari dispositis, hinc inde arctius sociatis, ligno immersis corticisque strato tenui tectis, in collum breve abrupte attenuatis; ostiolis satis elongatis, cylindricis, basim versus conico-dilatatis, crassiusculis, rectis v. rarius obliquis, corticem singulatim perforantibus v. per rimulas communes erumpentibus; ascis oblongis v. anguste clavatis, octosporis, 45–60 ≃ 7–9; sporidiis distichis v. rarius oblique monostichis, fusiformibus, quadriguttatis, bicellularibus, medio tandem parum constrictis, rectis vel curvulis, utrinque obtusiusculis, haud raro fere anisomeris, 12–14 ≃ 3–4. 2508

Hab. in caulibus emortuis Solidaginis Virgaureæ in Germania, Austria et Belgio.

157. **D. Euporthe indica** Sacc. et Speg. Mich. I, p. 391. — Stromate caules corticatos late ambiente atque parum infuscante, linea nigra per lignum flexuose excurrente limitato; peritheciis ligno infossis 2509

globulosis, vix $^1/_2$ mill. diam; ostiolis corticem perforantibus, parumque excedentibus; ascis fusoideis, 45–50 ≃ 8–9, aparaphysatis, octosporis; sporidiis distichis, oblongis, 14–15 ≃ 4, utrinque obtusiusculis, constricto-1-septatis, 2–4-guttulatis, hyalinis.

Hab. in caulibus emortuis Tagetum hortensium, Conegliano, Ital. bor. — Species *Diaporthi Arctii* (Lasch) Nits. affinis.

158. **D. Euporthe immersa** (Fuck.) Nits. Pyr. Germ. p. 270, *Sphæria immersa* Fuck. Fungi rhen. n. 1795. — Stromate latissime effuso, caules ambiente eorumque superficiem colore ex cinereo sordide atque opace fuscescente tingente intus undique nigrolimitato; peritheciis minutissimis, globosis vel depressis, ligni strato supremo totis immersis, laxe atque ordine subæquali vel fere lineari dispositis in collum abrupte attenuatis; ostiolis plus minus exsertis, punctiformibus, mox abbreviatis rotundatis, mox subconicis; ascis clavatis v. oblongis, octosporis, 50 ≃ 8; sporidiis distichis, raro oblique monostichis, fusiformibus, obtusiusculis, rectis, hyalinis, bicellularibus, quadriguttatis, 10–12 ≃ 3–4. — Spermogonia phomatoidea; spermatiis 6–7 ≃ 2–2,5; basidiis filiformi-arcuatis, 34 ≃ 1. 2510

Hab. in caulibus Lappæ minoris emortuis in Germania.

159. **D. Euporthe Acus** (Blox.) Cooke Grevill. VII, p. 81, *Sphæria Acus* Blox in Curr. Linn. Trans. XXII, p. 325, t. 58, fig. 93. — Peritheciis minutis subglobosis, depressis, tectis, ostiolis perforantibus, emergentibus acicularibus; sporidiis distichis v. stipatis, anguste-cymbiformibus, 2–4 nucleatis, 7,5–10 μ, longis, dein 1-septatis vix constrictis. 2511

Hab. in caule Lapparum in Britannia.

160. **D. Euporthe Arctii** (Lasch) Nits. Pyr. Germ. p. 268, *Sphæria Arctii* Lasch in Kl. Herb. mycol. n. 1046. — Stromate plus minus late effuso, sæpissime ambiente caulesque longe lateque in superficie tandem nigrificante v. rarius peridermio cinerascente, immo omnino non decolorato, ostiolis exasperato tecto, parte immersa strato extimo, nigricante cincto; peritheciis exiguis ordine vario sed in plerisque laxe sparsis, multo rarius hinc inde dense stipatis, globosis v. depressis, ligni substantiæ omnino immersis, in collum tenuissimum abrupte attenuatis; ostiolis modo elongatis, tenuissime cylindricis v. basim versus paullo incrassatis, rectiusculis v. sæpius, flexuosis v. secundis, modo abbreviatis, conicis, immo hemisphæricis, punctiformibus, pertusis; ascis oblongis v. rarius clavatis sessilibus, octosporis, plerumque 40–50 ≃ 6–9; sporidiis sub- 2512

distichis, fusiformibus, utrinque acutiusculis, inæquilateralibus v. parum curvatis, raro rectiusculis, bicellularibus, quadriguttulatis, haud constrictis, hyalinis, 10–14 ≃ $2^1/_2$–$3^1/_3$.

Hab. in caulibus emortuis Lapparum, *Cirsii, Cardui, Tanaceti, Centaureæ, in Germania, Britannia, Italia, Amer. bor. — Teste Rehm paraphyses (genuinæ?) articulatæ 6 μ. cr. adsunt. — An species a præcedente diversa?

161. **D. Euporthe Phaceliæ** Cooke et Harkn. Grev. 1881, IX, p. 86. 2513
Sub-effusa, stromate sub cortice nigricante; peritheciis subglobosis immersis; ostiolis cylindricis elongatis, flexuosis; ascis clavatis sessilibus; sporidiis rectis sublanceolatis, 4-nucleatis, dein 1-septatis, 15 ≃ 3.

Hab. in caule Phaceliæ, California Amer. bor.

162. **D. Euporthe adunca** (Desm.) Niessl in Kunze Exs. n. 134, *Sph. adunca* Rob. et Desm. XIX, Not. p. 14. — Sparsa, minutissima, macula purpurea vel nigricante insidens; peritheciis immersis tectis globosis, subnigris, mollibus albido-farctis; ostiolo erumpente cylindrico oblique arcuato vel apice incurvo longitudine perithecíorum; ascis subclavatis 50 μ. long.; sporidiis fusiformibus, sæpius rectis 2–4-guttulatis, 12–15 ≃ 3,5–4,5, hyalinis. 2514

Hab. in scapis vetustis Plantaginis lanceolatæ in Gallia, Germania et Italia.

163. **D. Euporthe demissa** Sacc., Fungi Ven. Ser. IV, p. 9. — Stromate breviter hinc inde per lignum immutatum excurrente linea tortuosa nigra limitato, stratoque exteriori corticali v. ligneo tandem atro-inquinato, peritheciis ligno immersis subglobosis, $^1/_2$ mill. diam., ostiolo cylindraceo, brevi peridermium vix superante; ascis fusoideo-oblongis 50 ≃ 8–9, 8sporis; sporidiis distichis, oblongis, 12–14 ≃ $3^1/_2$–$3^3/_4$, utrinque rotundatis tenuiter 1-septatis, 3-guttulatis, hyalinis. 2515

Hab. in ramis Clematidis Vitalbæ putrescentibus in sylva Montello, Treviso, Italia bor. — *D. crypticæ* Nits. affinis.

164. **D. Euporthe discors** Sacc. Mich. II, p. 60, *D. Rumicis* Plowr. Grev. VII, p. 197 (sine diagnosi). — Stromate varie effuso interruptoque, caulis ruperficiem nigrificante, linea nigra infra non limitato; peritheciis sparsis globulosis $^1/_3$ mill, diam., ostiolis vix extantibus punctiformibus; ascis fusoideo-clavatis, 60–62 ≃ 10–11, lumine apice 2-foveolato, aparaphysatis, octosporis; sporidiis fusoideis curvulis, utrinque obtusiusculis, 17–18 ≃ 4–$4^1/_2$, 4-guttatis, hyalinis. 2516

Hab. in caule Rumicis obtusifolii etc. in Gallia (Brunaud), Italia (Passerini), Britannia (Plowright). — A *Diap. maculosa* Sacc. et Speg. Michel. I, 383 probe diversa.

165. **D. Euporthe Euphorbiæ** Cooke Grev. III, p. 67. — Stromate plagulas elongatas determinatas piceas formante; peritheciis ligno immersis; ostiolis perforantibus cuticulamque leniter elevantibus; ascis subcylindricis 48–60 ≃ 6–8; sporidiis fusoideis, quadriguttatis, hyalinis, 10–13 ≃ 2,5–3,5. 2517

Hab. in caule emortuo Euphorbiarum sylvaticarum, Darent Britanniæ, Treviso Ital. bor.

166. **D. Euporthe incrustans** Nits. Pyr. Germ. p. 267. — Stromate effuso, plagas magnitudine maxime varias, hinc inde ambientes, ambitu irregulares sistente, mox peridermio ostiolis innumeris perfosso, ceterum immutato velato, mox, peridermio v. rarius cortice etiam putredine destructo, nudato, matricemque nigrificante, immo crustulas formante aterrimas, sublæves nitidulas, intus vero nigrolimitato; peritheciis minutis, globosis, rarius depressis v. angulatis, ligni strato supremo, raro altius infossis dense sparsis, in collum abrupte attenuatis; ostiolis elongatis, tenuissime cylindricis, nodulosis, sæpissime fasciculatim erumpentibus, rectiusculis v. flexuosis, aterrimis, multo rarius abbreviatis, punctiformibus; ascis anguste clavatis v. oblongis, octosporis, 50–64 ≃ 6½–9; sporidiis distichis v. oblique monostichis, fusiformibus, obtusiusculis, rectis v. rarius parum curvatis, subhyalinis, bicellularibus, quadriguttatis, 12–14 ≃ 3. — Spermogonia phomatoidea: spermatiis 5–7 ≃ 2–2,5; basidiis 20 μ. longis. 2518

Hab. in caulibus induratis putrescentibus Brassicæ oleraceæ in Westphalia et Rhenogovia.

167. **D. Euporthe minuscula** Sacc. et Speg. Mich. I, p. 387. — Stromate longe et late caules decorticatos ambiente eosque superficie atro-inquinante; peritheciis globosis, ¼ mill. diam., ligno infossis, ostiolo perforante breveque exerto; ascis fusoideis, 45 ≃ 7–8, aparaphysatis, octosporis; sporidiis fusoideis, constricto-1-septatis, 13–16 ≃ 3–4, 4-guttulatis hyalinis. 2519

Hab. in caule Campanulæ Trachelii putrescente, Conegliano, Ital. bor. — A *Diap. Tulasnei* Nits. ostiolis breve exertis præcipue recedit.

168. **D. Euporthe muralis** Speg. in Mich. I, p. 458. — Stromate caulem late ambiente; peritheciis globosis, atris, ligno immutato immersis, discretis vel rarius subaggregatis, ⅕–⅙ mill. diam., ostiolo 2520

cylindraceo-conoideo, plus minusve exerto, nunc recto nunc obliquo ornatis; ascis oblongo-fusoideis, 40–50 ≃ 8–10, 8-sporis, aparaphysatis; sporidiis distichis vel oblique monostichis oblongo-ellipsoideis, medio 1-septatis atque constrictis, utrinque obtusiuscule acuminatis, 15 ≃ 4, quadriguttulatis, hyalinis.

Hab. in caulibus emortuis Sedi albi, Padova et S. reflexi, Belluno, Ital. bor.

169. **D. Euporthe neapolitana** Sacc. Mich. I, pag. 388. — Stromate longe et late ramulos decorticatos ambiente et superficie atro-inquinante; peritheciis gregariis, ligno infossis, globoso-depressis, $^1/_2$ mill. diam.; ostiolis conico-cylindraceis, $^1/_2$ mill. longis, emergentibus, apice obtusiusculis; ascis fusoideis, deorsum acutioribus, 50–60 ≃ 10–12, aparaphysatis, octosporis; sporidiis distichis, oblongo-fusoideis, medio constrictis, 12–15 ≃ 3–4$^1/_2$, utrinque obtusiusculis, 4-guttulatis, hyalinis. 2521

Hab. in ramis emortuis Mesembryanthemi acinacifolii in collibus di Posilippo prope Neapolim, Ital. merid. (Com. A. Magnaguti-Rondinini).

170. **D. Euporthe obsoleta** Sacc. Fungi Ven. Ser. IV, p. 10. — Stromate late per caules ramulosque parum infuscatos excurrente intusque nigro-limitato; peritheciis discretis ligno infossis globosis, subdepressis, $^1/_2$ mill. diam., fuscis; ostiolis cylindraceo-conoideis corticem perforantibus et plerumque, cortice disrupto, spinulose exertis; ascis cylindraceo-fusoideis 50–60 ≃ 10, 8sporis; sporidiis distichis, oblongo-fusoideis, 15–18 ≃ 4–4$^1/_2$, utrinque obtuse acuminatis, tandem constricto-1-septatis, 4-guttulatis, hyalinis. 2522

Hab. in caule ramisque Hyperici calycini, prope Treviso Ital. bor. (Saccardo) et Shrewsbury Britanniæ (Phillips). — *D. linearis* (Nees) Nits. affinis, sed peritheciis inordinatis et sporidiis majoribus satis distincta.

171. **D. Euporthe Vincæ** Cooke. Fungi Brit. II, n. 493. Grev. V, p. 63. — Peritheciis ligno immersis, maculasque definitas nigro-circumscriptas occupantibus; ostiolis papillatis, parce elongatis; ascis subclavatis; sporidiis lanceolatis, 4-nucleatis, 20–22 μ. longis. 2523

Hab. in caule Vincæ, Forden Britanniæ (Vize).

172. **D. Euporthe Desmazierii** Niessl Beitr. pag. 53. *Sph. inquilina* Desm. Crypt. Fr. II, 1766 nec Wallr. *Diaporthe Labiatæ* Cooke Grevill. V, p. 63. — Peritheciis caule superficie rufescenti-nigrificato immersis, gregariis, globulosis; ostiolis longis spiniformibus erectis, basi subincrassatis; ascis clavatis, 40–50 ≃ 6–7, subsessili- 2524

bus; sporidiis anguste fusoideis, uniseptatis 4nucleatis, subconstrictis, rectiusculis, 13–16 ≃ 3.

Hab. in caulibus Prunellæ Caën Galliæ, Dinmore Britanniæ. — Var. *Melampyri.* In caule Melampyrorum in Austria et Italia.

173. **D. Euporthe salviæcola** C. et E. Grevill. V, p. 93. — Effusa vel sparsa; peritheciis globosis, matrici superficie denigratæ immersis; collo elongato facile diffracto; ascis clavatis; sporidiis anguste lanceolatis, quadrinucleatis, 15 μ. long. 2525

Hab. in caulibus Salviæ, New Jersey Amer. bor.

174. **D. Euporthe Tulasnei** Nits. Pyr. Germ. p. 274, ?*Rhytisma Urticæ* Tul. Carp. II, p. 64. — Stromate effuso, maculas ambitu et magnitudine maxime varias sed plerumque breviores, aterrimas in caulium superficie formante, intus mox decolorato et nigrolimitato; peritheciis exiguis, globosis v. globoso-depressis, ordine vario sed plerumque dense sparsis, stromati extimo totis immersis, sed sæpe nonnihil protuberantibus; ostiolis minutissimis vix prominulis, punctiformibus, rarius magis exsertis, conicis v. cylindricis; ascis oblongis v. clavatis, octosporis, 46–53 ≃ 6–7; sporidiis distichis, fusiformibus, utrinque obtusiusculis, bicellularibus, quadriguttatis, medio nonnumquam constrictis, subhyalinis, 10–14 ≃ 3. 2526

Hab. in caulibus Lamii Orvalæ, Urticæ dioicæ, Hesperidis matronalis, Aristolochiæ, Solani tuberosi, Chenopodii albi, Verbasci, Medicaginis, Menthæ in Gallia, Germania et Italia.

175. **D. Euporthe canina** Sacc. — Stromate hinc inde maculiformi ligni superficiem atroinquinante; peritheciis gregariis ligno dealbato immersis, ostiolis vix emergentibus, punctiformibus; ascis fusoideis, subsessilibus, 60 ≃ 10 lumine apice 2-foveolato; sporidiis distichis v. oblique monostichis oblongo-fusoideis, utrinque obtusiusculis, constricto-1-septatis, 4-guttatis, 15 ≃ 4, hyalinis. 2527

Hab. in caulibus crassioribus Scrophulariæ caninæ, Vittorio Ital. bor. — Paraffinis *D. Tulasnei,* a quæ ascis sporidiisque paulo majoribus differre videtur.

176. **D. Euporthe semiinsculpta** Sacc. *Sphæria semiimmersa* B. et C. North Amer. Fungi n. 932 (nec Nits.). — Deorsum immersa, sursum subcylindrica; sporidiis tereti-oblongis, curvis, quadrinucleatis, 15 μ. longis. 2528

Hab. in caulibus herbaceis, Connecticut (C. Wright).

177. **D. Euporthe pratensis** Sacc. et Sp. Mich. I, p. 389. — Stroma- 2529

te caules corticatos v. decorticatos late ambiente et atroinquinante; peritheciis ligno immersis, globulosis, $^1/_3$–$^1/_2$ mill. diam., laxe gregariis, ostiolis cylindraceis, nunc vix, nunc breve emergentibus; ascis clavato-fusoideis, apice obtusioribus, 35–40 ≃ $6^1/_2$–$7^1/_2$, aparaphysatis, octosporis; sporidiis distichis v. oblique monostichis, ovato-oblongis, 14–15 ≃ 3–4, constricto-1-septatis, utrinque obtusiusculis, 4-guttulatis, hyalinis.

Hab. in caulibus languidis Medicaginis lupulinæ, Conegliano, Ital. bor.

178. **D. Euporthe Winteri** J. Kunze F. sel. exs. n. 356 (absque diagnosi). 2530
— Stromate caules late ambiente corticisque superficiem denique nigrificante; peritheciis gregariis ligno subimmutato infossis, globulosis, ostiolis cylindraceis peridermium perforantibus spinuloseque prominentibus; ascis fusoideo-clavatis subsessilibus, (spurie?) paraphysatis, 42–46 ≃ 7–9, octosporis; sporidiis distichis breve fusoideis, rectiusculis, 10 ≃ 3,5, tenuiter 1-septatis, non constrictis, hyalinis.

Hab. ad caules emortuos Ononidis repentis pr. Zürich Helvetiæ (Winter).

179. **D. Euporthe Chailletii** Nits. Pyr. Germ. p. 276 *Sphæria spiculosa β Belladonnæ* Fr. El. II, p. 75. — Stromate plus minus late effuso, maculas in caulium superficie efformante irregulares, ex fusco tandem aterrimas, nitidulas, ostiolis minimis vix exasperatas, intus strato extimo nigricante undique limitato; peritheciis exiguis plerumque laxe sparsis, subglobosis v. depressis, ligno omnino et pro ratione alte immersis, in collum breve ac tenuissimum abrupte attenuatis; ostiolis punctiformibus, in plerisque vix prominulis, rarius parum exertis, conicis; ascis anguste clavatis v. oblongis, octosporis, 42 ≃ 6; sporidiis distichis, anguste fusiformibus, rectis, utrinque acutiusculis, hyalinis, bicellularibus, 12–13 ≃ $2^1/_2$–3. 2531

Hab. in caulibus emortuis Atropæ Belladonnæ in Germania, Britannia, Helvetia. — Var. *Molleri:* sporidiis in processum hyalinum utrinque abeuntibus. In caulibus Dipsaci sylv. pr. Coimbra Lusitaniæ. Cfr. Thuem. Contr. Myc. Lus. n. 285.

180. **D. Euporthe Dulcamaræ** Nits. Pyr. Germ. p. 250, *Sphæria spiculosa* var. Mont. — Stromate latissime effuso, matricis caules surculosos, exsiccatos ambiens eorumque corticem sensim relaxando tandem discutiente, ligni subpositi superficiem vero longe lateque colore ex fuscescente nigricante tingente, parte immersa ni- 2532

grolimitata; peritheciis minutis, globosis v. a vertice depressis, immo subhemisphæricis, ligni strato extimo infossis, plerumque laxe ac sine ordine sparsis, subinde protuberantibus, in collum abrupte attenuatis; ostiolis parum elongatis e basi conico-dilatatis, cylindricis, pro ratione crassiusculis, primo corticem perforantibus eumque paullo v. vix superantibus, deinde, stromate nudato liberis; ascis clavatis v. oblongis, octosporis, 60-80 ≃ 10-12; sporidiis distichis, fusiformibus, obtusiusculis, bicellularibus, haud constrictis v. rarius parum torulosis, hyalinis, 15-18 ≃ 3,5-5.

Hab. in caulibus emortuis Solani Dulcamaræ in Germania, Britannia, Italia, Gallia.

181. **D. Euporthe pampeana** Speg. Fung. Arg. Pug. IV, n. 155. — 2533
Maculis stromaticis versiformibus ac sæpius latiusculis, subdeterminatis, atris, caules ambientibus, linea per lignum excurrente ac limitante nulla; peritheciis ligno immutato immersis globosis, 200-250 μ. diam., tenui-membranaceis, in ostiolum subcarbonaceum superficiem stromatis attingens non v. vix exertum productis, contextu parenchymatico, fuligineo-olivaceo; ascis fusoideis, sursum obtusiuscule rotundatis, deorsum attenuato-subacuminatis, 50 ≃ 7-8, aparaphysatis, octosporis; sporidiis distichis, cylindraceo-ellipticis, utrinque subtruncato-rotundatis, 12-14 ≃ 3, medio 1-septato-constrictis, majuscule 4-guttulatis, hyalinis.

Hab. in ramulis dejectis putrescentibus Solani glauci in uliginosis prope la Estancia de la Paciencia, Tuyù, Amer. Austr.

182. **D. Euporthe aculeata** (Schw.) Sacc. *Sphæria* (concrescentes) 2534
aculeata Schw. Syn. Am. bor. n. 1287. *D. Berkeleyi* et *D. spiculosæ* var. Auct. — Longissime, indeterminate effusa, crusta tenui nigra, primum epidermide tenerrima tecta dein orbata; peritheciis omnino ligno caulino ime immersis, depresso-globosis, atris, sparsis; ostiolis longissimis, teretibus sursum subincrassatis demum decumbentibus ac diffractis; fructificatione generis.

Hab. frequentissime in caulibus emortuis maximarum herbarum præsertim Phytolaccæ, Bethlehem et Salem Amer. bor. — Valde affinis *D. spiculosæ.*

183. **D. Euporthe euspina** C. et E. New Jersey Fungi in Grevill. V, 2535
p. 93. — Effusa, in matrice superficie nigrificata immersa; collo elongato; ascis clavatis; sporidiis lanceolatis, uniseptatis, quadrinucleatis, 18 ≃ 3.

Hab. in caule Chenopodii, New Jersey Americæ borealis. — Affinis *D. spiculosæ.*

184. **D. Euporthe intermedia** Sacc. Fungi Ven. Ser. IV, p. 9. — Stro- 2536
mate caulem late ambiente per lignum sæpe infuscatum profunde excurrente, linea nigra stratoque ligni extimo atroinquinato circumscripto, cortice permanente, immutato v. leniter infuscato; petheciis globosis atris, ligno immersis, discretis, rarius subaggregatis, $^1/_4$ mill. diam., ostiolis cylindraceo-conoideis epidermidem longiuscule, ut plurimum, superantibus, nunc rectis nunc subobliquis; ascis oblongo-fusoideis, $50 \simeq 6$, 8sporis; sporidiis distichis v. oblique monostichis, oblongo-fusoideis, $12–14 \simeq 3^1/_2–4$, medio denique constrictis, utrinque obtusiuscule acuminatis, 4-guttulatis, hyalinis. — Spermogoniis sphæroideis rugulosis inter corticem lignumque nidulantibus, aterrimis, nucleo fusco fœtis; spermatiis breve fusoideis utrinque acutis, $6 \simeq 2^1/_2$, crasse 2-guttatis, sterigmatibus filiformibus, hamatis, $20 \simeq ^1/_2$, suffultis.

Hab. in caulibus Saponariæ officinalis pr. Treviso Italiæ bor. — Ambigit inter *D. immersam* et *D. orthoceras* sed *immersæ* affinior, a qua petheciis inorditate dispositis, ostiolisque longioribus differt.

185. **D. Euporthe ambiens** Fuck. Symb. myc. App. II, p. 38. — Stro- 3537
tibus plerumque ad caulium internodia late effusis et caules sæpe tŏtos occupantibus, indeterminatis, rarius linea nigra determinatis, nigris; petheciis spermatiiferis in stromate nidulantibus, majusculis, tectis, tuberculiformibus, atris, ostiolis papillatis, epidermidem perforantibus; spermatiis oblongis hyalinis, biguttulatis, $8–10 \simeq 4$; petheciis ascigeris nondum inventis.

Hab. in caulibus siccis Cerestii trivialis, rarius prope Œstrich Rhenogov. — Probabile, præeunte ipso Fuckelio, quod *Euryachora ambiens* (Lib.) Fuck. nonnisi stroma hujus sterile sistat.

C) In *Monocotyledoneis* et *Acotyledoneis*.

186. **D. Euporthe gloriosa** Sacc. et Sp. Mich. I, p. 390. — Stromate 2538
foliorum superficiei plagulas oblongas vel irregulares, parvas, atronitentes hinc inde afficiente; petheciis parenchymate infossis, $^1/_3$ mill. diam., globosis, ostiolo acutiusculo parum excedente; ascis clavato-fusoideis $50 \simeq 8–10$, apice lumine bi-foveolato, aparaphysatis, octosporis; sporidiis distichis rectiusculis, oblongo-fusoideis, $12–15 \simeq 3–4$, medio constrictis, obsoleteque septatis, 4-guttulatis, hyalinis.

Hab. in foliis languidis Yuccæ gloriosæ, Conegliano Italiæ borealis, rarius.

187. **D. Euporthe asphodelea** Sacc. Mich. II. p. 59. — Stromate effuso caulis superficiem nigrificante, zona nigra infralimitato; peritheciis immerso-prominulis, sparsis lenticularibus $^1/_3$ mill. diam., ostiolis punctiformibus; ascis clavulatis, subsessilibus, 70–80 ≃ 8, apice lumine bifoveolato, octosporis, aparaphysatis; sporidiis distichis breve fusoideis, curvulis, 14–15 ≃ 4–5, 1-septatis, vix constrictis, 4-guttulatis, hyalinis, utrinque obtusiusculis. 2539

Hab. in caule Asphodeli pr. Rouen Galliæ (Letendre). — A *D. Asparagi* (Fuck.) Nits. certe diversa.

188. **D. Euporthe scandens** Sacc. et Sp. Mich. I, p. 389, *D. Tami* Sp. in M. Univ. n. 1657. — Stromate caules arcte corticatos late ambiente, superficiemque nitide nigrificante; peritheciis ligno intus dealbato lineolaque nigra circumscripto infossis, globulosis, $^1/_4$–$^1/_3$ mill. diam., ostiolis cylindraceis, rostellatis, $^1/_3$–$^1/_2$ mill. extantibus; ascis fusoideo-clavatis, 40–50 ≃ 6–6$^1/_2$, sessilibus, aparaphysatis, octosporis; sporidiis distichis v. oblique monostichis oblongo-fusoideis utrinque obtusiusculis, constricto-1-septatati, 4-guttulatis, hyalinis. 5540

Hab. in sarmentis Tami communis putrescentibus Colfosco, Italiæ borealis, prope Coimbra Lusitaniæ.

189. **D. Euporthe pantherina** (Berk.) Cooke Grev. VII, p. 82. *Sphæria pantherina* Berk. in Cooke Handb. n. 2689. — Maculis stromaticis subellipticis, linea flexuosa nigra circumscriptis; peritheciis immersis, ostiolo longicolli, prominente; ascis lanceolatis; sporidiis oblongo-fusoideis, 2-4-nucleatis. — Spermatia fusoidea, angusta, 20 μ. longa. 2541

Hab. in stipitibus Pteridis aquilinæ in Britannia. — Linea stromatica lignum quoque penetrat.

190. **D. Euporthe pachystoma** (Lév.) Sacc. *Sphæria* (conferta) *pachystoma* Lév. Ann. Scienc. nat. 3, 1845, p. 51. — Innata, globosa vel elongata confluens inæquabilis nigra; peritheciis prominulis elongatis intus albis, stromate nigro immersis, ostiolis crassis elongatis rostratis; ascis teretibus; sporidiis ellipticis submonostichis hyalinis, continuis (?). 2542

Hab. in Peruvia, ad caules Lycopodii flabellati (Pœppig).

III. *Tetràstaga* Nits.: peritheciis gregariis, cortice immutato vel denique atro-maculato immersis, intus sæpius linea nigra limitatis. (Etym. *tetra*, quatuor et *stagon*, gutta, ob sporidia sæpissime 4-guttata).

A) Arboricolæ et fruticicolæ.

191. **D. Tetrastaga rudis** (Fr.) Nits. Pyr. Germ. p. 282, *Sphæria rudis* Fr. Eleuch. II, p. 98, *Aglaospora rudis* Tul. Carp. II, p. 165, *Hercospora rudis* Auersw. — Stromate nunc late effuso, ramos ramulosque ambiente, nunc contra et quidem sæpius brevi, maculas sistente orbiculares, ovales v. irregulares, approximatas v. confluentes; ligni corticisque substantia vix tandem expallescente nigrolimitata, corticisque interioris superficie tandem sordide nigricante v. lineata; peritheciis globosis, cortici interiori plus minus alte immersis, ordine vario sparsis, collo ostioloque tenui, cylindrico breviterque exserto instructis; ascis clavatis v. oblongis, basi breviter attenuatis, octosporis, 62–70 ≃ 8; sporidiis subdistichis, fusiformibus, plerumque obtusiusculis, rectis v. parum curvatis, hyalinis, medio parum constrictis v. torosis, bicellularibus, quadriguttatis, 14–16 ≃ 4. — Spermogonia phomatoidea: spermatiis 6–7 ≃ 2, biguttatis; basidiis hamatis, 21–30 ≃ 1,3. 2543

Hab. in ramis Cytisi Laburni et C. nigricantis emortuis in Germania, Italia, Gallia.

192. **D. Tetrastaga ligulata** Nits. Pyr. Germ. p. 291. — Stromate effuso, ambitu et magnitudine maxime vario sed plerumque brevi, substrato toto immerso, strato nigricante, in lignum alte descendente undique circumscripto; peritheciis minutis, globosis v. parum depressis, corticis strato infimo v. ligno supposito ipso impositis, ordine valde inæquali sed plerumque laxe sparsis, hinc inde tamen densius congestis, tunc sæpe tractu lineari dispositis, in collum brevissimum v. parum elongatum abrupte attenuatis; ostiolis in plerisque longissime exsertis, tenuissimis, cylindricis v. sæpius a latere compressis, ligulatis, flexuosis v. secundis, raro abbreviatis, corticem perforatum parum tantum superantibus; ascis anguste clavatis v. fusiformibus, octosporis, 60 ≃ 9–10; sporidiis subdistichis, fusiformibus v. subcylindricis, utrinque obtusiusculis, rectis v. inæquilateralibus, bicellularibus, bi-quadriguttatis, medio parum constrictis, hyalinis v. pallide lutescentibus, 12–13 ≃ 4. 2544

Hab. in ramis Ulicis europæi prope Münster Germaniæ et prope Saintes Galliæ (Brunaud). — Forma gallica dignoscitur:

ostiolis parum exertis; ascis fusoideis 60 ≃ 8; sporidiis oblongo-biconicis, 10–11 ≃ 3–3½, medio constrictis, utrinque obtusiusculis, 4-guttatis, hyalinis.

193. **D. Tetrastaga Sarothamni** (Auerswd.) Nits. Pyr. Germ. p. 303, 2545
Valsaria Sarothamni Auersw. in litt. — Stromate rarius late effuso ramulosque ambiente, sæpius contra brevi, maculæformi, immo brevissimo valsæformi, quoad immersum, ligni materiam pallidam reddente, nigro-limitato; corticis parenchymate, dein nigrescente ac crustulas efformante induratas, aterrimas; peritheciis magnis, e globoso plus minus depressis, cortici intimo, immo basi ligno, supposito infossis, ordine mox subæquali, mox vario ordinatis, in collum breve constrictis; ostiolis crassiusculis, abbreviatis, parum v. vix exsertis; ascis subcylindricis v. anguste oblongis, octosporis, 60–69 ≃ 7–8; sporidiis distichis v. rarius submonostichis, fusiformibus utrinque acutis, rectis, bi-cellularibus, quadriguttatis, medio haud constrictis, subhyalinis, 14–15 ≃ 3–5. — Spermogonia phomatoidea: spermatiis 8–12 ≃ 2; basidiis 30 ≃ 1, hamatis.

Hab. in ramis siccis Sarothamni scoparii in Germania, Britannia, Gallia. — *Sphæria tetragona* Duby et *Sph. interrupta* Mont. huc forte spectant ex Nitschke. Verisimiliter huc quoque referenda *Sph. operta* Quel. Jura p. 507, nec *Sph.* (circinata) *operta* Kunze M. Heft. I, 61; quæ (sporidiis oblongo-acutis, fuscis) forte *Anthostoma*.

194. **D. Tetrastaga inæqualis** (Curr.) Nits. Pyr. Germ. p. 285, Sacc. 2546
Myc. Ven. p. 140, t. XIII, fig. 76–78, *Sphæria inæqualis* Curr. Linn. Trans. XXII, p. 270, fig. 79, *Sph. Fuckelii* Duby in Fuck. Fungi rhen. n. 919, *Melanconis Castri-Labatii* Speg. Dec. myc. n. 90. — Stromate effuso, ambitu et magnitudine maxime vario, mox ramos ramulosque longe ambiente, mox brevissimo ac peritheciis coalescentibus valseo simillimo; strato extimo nigricante v. in ligni superficiem tantum v. etiam in lignum ipsum descendente; peridermio haud decolorato; peritheciis majusculis, globosis v. sæpius depressis (basi applanatis), vel angulosis, nunc ordine fere æquali sparsis, nunc 2–15 densius aggregatis, immo omnino, stromatis more valsei, coalitis, in cortice infimo nidulantibus, peridermio corticeque substrati vetustate delapso, denique tamquam liberis, lignoque nigrefacto insidentibus; ostiolis crassiusculis, cylindricis, basim versus conico-dilatatis, plus minus elongatis et exertis, rectis v. inflexis, peritheciis coalitis fasciculatim erumpentibus; ascis cylindricis, in pedicellum breve basi attenuatis, octosporis,

70–100 ≃ 8–11; sporidiis plus minus oblique monostichis, ovatis, utrinque obtusis v. rotundatis, bicellularibus, biguttatis, medio tandem parum constrictis, rectis v. rarius inæquilateralibus, subhyalinis, 14–18 ≃ 7–10. — Spermogonia phomatoidea; spermatiis ..... basidiis 21–27 ≃ 2, curvulis.

Hab. in ramis corticatis Sarothamni, Cytisi, Genistæ, Ulicis in Germania, Britannia, Gallia, Italia. — Quoad sporidia, *D. fibrosæ* analoga.

195. **D. Tetrastaga Dorycnii** (Mont.) Sacc., *Sphæria Dorycnii* Mont. 2547
Pl. Cell. Cent. IX, p. 11. — Sparsa, ramulicola; peritheciis globoso-depressis minimis, epidermide atrata tectis, intus gelatina grisea farctis, ostiolo obsoleto; ascis cylindrico-clavatis octosporis, 80–100 ≃ 10; sporidiis hyalinis oblongis, 13–14 ≃ 5, 2–4-nucleatis.

Hab. ad ramulos siccos Dorycnii suffruticosi in montibus Saint-Cyr dictis prope Massiliam Galliæ.

196. **D. Tetrastaga dorycnea** H. Fab. Sphér. Vaucl. p. 75, t. I. f. 2. 2548
— Peritheciis nunc acervulos punctiformes vel lineares efformantibus, globosis, flaccidis, atris, in corticis parenchymate nigrificato nidulantibus; ostiolis brevibus, crassis, epidermide ruptâ cinctis; ascis lanceolatis, brevissime stipitatis, 8-sporis, 60–70 ≃ 14–16; sporidiis subdistichis, oblongis, hyalinis, medio constrictulis, subtiliter 1-septatis, loculis binis 1-magniguttatis, 15–27 ≃ 4–6.

Hab. ad ramos emortuos Dorycinii suffruticosi, Vaucluse Galliæ. — Verisimiliter non satis diversa a præcedente.

197. **D. Tetrastaga seposita** Sacc. Fungi Ven. Ser. IV, p. 7. — Stro- 2549
mate ramos late ambiente per lignum immutatum tortuose et profunde excurrente, nigrolimitato; peritheciis discretis, globosis, $^1/_4$–$^1/_3$ mill. diam., in cortice interiore immutato nidulantibus et fibris corticalibus sæpe velatis, nucleo fuscescente fœtis, ostiolis brevibus, cylindraceo-conoideis, obtusis, epidermidem non decoloratam et leviter pustulatim elevatam vix perforantibus; ascis oblongo-fusoideis 16–18 ≃ 5–6, utrinque obtuse acuminatis, constricto-tenuiter 1-septatis, 4-guttulatis, hyalinis. — Spermogoniis globoso-depressis in cortice exteriore nidulantibus, pulpa atra fœtis; spermatiis ellipsoideo-oblongis, 22 ≃ 1, hamatis fultis.

Hab. in ramis Wisteriæ sinensis Padova Ital. bor. et in Gallia merid. — *D. resecanti* Nits. affinis, differt præcipue peritheciis majoribus et spermatiis minoribus.

198. **D. Tetrastaga Sophoræ** Sacc. Fungi Ven. Ser. V, 202 et Mich. 2550
I, p. 384. — Stromate ramos corticatos late ambiente coloreque

nigro et cinereo inficiente; linea nigra intra lignum excurrente limitato; peritheciis gregariis, globulosis $^1/_3$ mill. diam., cortice nidulantibus, ostiolis peridermium parum excedentibus obtusiusculis; ascis fusoideis, 50–60 ≃ 8–10, aparaphysatis, 8sporis; sporidiis distichis v. oblique monostichis, fusoideis, 12–15 ≃ 5–6, constricto-1-septatis, 4-guttatis, hyalinis. — Spermogonium sistit *Phomam Sophoræ* Sacc.

Hab. in ramulis Sophoræ japonicæ, Conegliano, Ital. bor. — Status spermogonicus hujus speciei adest in Rabh. F. E. sub n. 2017 tamquam *Sphæriæ controversæ* Desm. pertinens; sed hæc species, ut monuit cl. Nits., collectiva est ejusque forma primaria servanda est *Diap. controversa* (Desm. p. p.) Nits. in Fraxino excelsiore. Cfr. Fuck. Symb. App. I. 31.

199. **D. Tetrastaga occidentalis** Sacc. et Speg. Mich. I, p. 384. — 2551
Stromate ramos corticatos late ambiente et parum infuscante intra lignum linea nigra flexuosa limitato; peritheciis gregariis globulosis cortice nidulantibus v. ligno basi infossis, $^1/_2$ mill. et ultra d., ostiolis longiusculis, flexuosis, peridermium excedentibus; ascis clavato-fusoideis, 45–55 ≃ 7–8, aparaphysatis octosporis; sporidiis distichis v. oblique monostichis, 12–14 ≃ 3–4, ovato-oblongis, medio conspicue constrictis, septatisque, utrinque obtusiusculis 4-guttulatis, hyalinis.

Hab. in ramis corticatis Gleditschiæ Triacanthi, Conegliano, Ital. bor.

200. **D. Tetrastaga mendax** Sacc. Fungi Ven. Ser. IV, p. 9, *D. fasciculata* forma in *Albizzia* Sacc. Myc. Ven. p. 140. — Stromate ramos late ambiente per lignum leniter infuscatum v. immutatum, sinuose excurrente, nigrolimitato; peritheciis in cortice nidulantibus, discretis, globoso-depressiusculis, $^1/_2$–$^1/_3$ mill. diam., ostiolis brevibus, cylindraceis, epidermidem subimmutatam vix superantibus; ascis fusoideis, 60 ≃ 8, 8sporis; sporidiis distichis, oblongis, 12–15 ≃ 5, sæpe inæquilateralibus, constricto-1-septatis, utrinque obtusiusculis, 4-guttulatis, hyalinis loculis quandoque secedentibus. 2552

Hab. in ramis emortuis Albizziæ Julibrissin, Padova Italiæ bor. — *Diaporthi Ryckholtii* (West.) Nits. affinis.

201. **D. Tetrastaga disseminata** Sacc. Mich. II, p. 61. — Stromate 2553
effuso obsoleto, linea nigra nulla circumscripto; peritheciis subcutaneis lignoque partim infossis, sparsis, globulosis, $^1/_2$–$^3/_4$ mill. d., ostiolis vix extantibus; ascis cylindraceo-fusoideis, 80–90 ≃ 12–14, apice lumine 2-foveolato, aparaphysatis, 8sporis; sporidiis biconi-

co-fusoideis utrinque obtusiusculis 15–20 ≃ 5–6, constrictis, 4-guttulatis.

Hab. in ramis corticatis Ailanthi glandulosæ prope Saintes Galliæ (Brunaud). — A *Diap. Ailanthi* Sacc. stromate haud valseo, ascis sporidiisque majoribus satis superque recedit.

202. **D. Tetrastaga compressa** Sacc. Fungi Ven. Ser. IV, p. 8. — 2554
Stromate petiolos præcipue vero eorum basim incrassatam late ambiente, usque ad medullam penetrante, linea nigra corticeque atroinquinato limitato; peritheciis globoso-depressis, discretis, in cortice nidulantibus, $^1/_4$ mill. latis, atris, ostiolis brevissimis peridermium vix perforantibus, sed hinc inde leviter elevantibus; ascis fusoideo-oblongis, 50–55 ≃ 6–7, 8sporis; sporidiis distichis, cylindraceo-fusoideis, 15 ≃ $3^1/_2$–4, utrinque obtusiusculis rectis v. sæpius curvulis, medio constrictis, tenuiter 1-septatis, 4-guttulatis, hyalinis.

Hab. in petiolis putrescentibus Ailanthi glandulosæ, Selva, Treviso, Ital. bor. — Teste cl. Spegazzini eadem species occurrit in petiolis Meliæ Azedarach prope Buenos-Aires Amer. meridionalis.

203. **D. Tetrastaga Wibbei** Nits. Pyr. Germ. p. 305. — Stromate in 2555
plerisque latissime effuso, ramos ramulosque ambiente, toto immerso, nigro-limitato, peridermio haud decolorato arcteque adhærente obducto; peritheciis majusculis e globoso mox vehementer depressis v. basi tantum applanatis, cortice interiore excepta, vertice plus minus protuberante peridermio pustulato-elevato vestitis, ordine haud conspicuo sparsis, sæpe gregatim stipatis v. 2–4 Valsarum in modum arcte aggregatis, collo brevissimo et ostiolo per peridermii poros v. rimulas exiguas rumpente sed vix extante instructis; ascis anguste clavatis, octosporis, 52–60 ≃ 8; sporidiis distichis v. oblique monostichis, anguste fusiformibus, utrinque obtusiusculis fere cylindricis, rectis, subhyalinis, bi-cellularibus, quadriguttatis, medio haud constrictis, 17–18 ≃ 3.

Hab. in ramis emortuis Myricæ Gales in Germania et Britannia.

204. **D. Tetrastaga Aubertii** (West.) Lamb. Fl. myc. Belg. II, p. 283, 2556
Sphæria Aubertii West. in Bull. Acad. Belg. Ser. II, t. VII, n. 5. — Peritheciis minutis, sphæricis, membranaceis, fusco-nigricantibus, 2–5 aggregatis, cortice immersis; ostiolis perforantibus, solitariis v. fasciculatis, breviusculis; ascis fusoideis, minutis, aparaphysatis; sporidiis distichis, ovoideo-oblongis, 1-septatis, hyalinis.

Hab. in truncis emortuis Myricæ Gales prope Béverloo Belgii (Tosquinet). — Probabiliter non diversa a præcedente.

205. **D. Tetrastaga rostellata** (Fr.) Nits. Pyr. Germ. p. 298. *Sphæria rostellata* Fr. S. M. II, p. 476. *Sph. Rubi* Mart. Erl. p. 487. — 2557
— Stromate latissime effuso, ambiente, Ruborum sarmenta haud raro per longitudinem integra infestante atque peritheciorum ostiolis exsertis setulosa reddente, omnino innato ac substrati massa ipsa, specie saltem nequaquam mutata formato; peritheciis perexiguis, globosis v. plus minus depressis, corticis interioris strato extimo infossis, ordine subæquali, denseque sparsis, in collum brevissimum, tenue subito angustatis; ostiolis conicis, brevibus v. rarius e basi conico-incrassata sensim attenuatis, cylindricis, longiusculis tenuissimis, rectis, in plerisque autem peridermium perforatum haud decoloratum, cortici interiori arctissime adhærens parum tantum superantibus; ascis anguste oblongis rarius clavatis octosporis, 45-55 ≃ 6-7; sporidiis distichis, fusoideis, curvulis, 13-15 ≃ $3^1/_2$-4, medio non v. lenissime constrictis, 4-guttatis, hyalinis, utrinque setulâ obliquâ 5-6 μ. longâ auctis.

Hab. in sarmentis Rubi fruticosi, R. cæsii, R. villosi, R. idæi in Suecia, Germania, Britannia, Belgio, Italia, Gallia, America boreali.

206. **D. Tetrastaga gallophila** Ellis Bull. Torr. Cl. 1881 pag. 90. — 2558
Dense gregaria; peritheciis subcutaneis, depresso-hemisphæricis, 200-250 μ. diam., rugulosis; ostiolis cylindricis obtusis, asperulis, 150-200 μ. longis; ascis octosporis; sporidiis distichis oblongo-fusoideis, hyalinis, 2-4-nucleatis, constrictis, leniter curvis, 14-18 μ. longis, initio utrinque tenuiter appendiculatis.

Hab. in sarmentis Rubi villosi prope Newfield New Jersey Amer. sept. — Sarmenta fungillo invasa, ob ostiola nigro-velutina apparent.

207. **D. Tetrastaga vepris** (De Lacr.) Fuck. et Nits. Pyr. Germ. p. 300. *Sphæria vepris* De Lacr. in Rabh. F. Eur. n. 443. *Sph. rostellata* f. *minor* Desm. Crypt. exs. n. 783. — 2559
— Stromate longe lateque effuso, ambiente substrato toto immerso ejusque substantiam extus intusque specie nullo modo mutante; peritheciis cortici interiori infossis v. sub peridermio tandem liberis, ordine fere æquali sparsis, minutissimis, e globoso mox valde depressis, in collum brevissimum abrupte attenuatis; ostiolis minimis, punctiformibus, peridermium perforatum, ceterum arcte adhærens vix superantibus; ascis subcylindricis, basim versus sensim attenuatis octospo-

ris, 44–48 ≃ 5–7; sporidiis oblique monostichis v. distichis, anguste fusiformibus, subcylindricis, rectis, hyalinis v. pallide luteolis, quadriguttatis deinde bicellularibus, 7–8 ≃ 2. — Spermogonia phomatoidea; spermatiis 6 ≃ $1^1/_2$, fusoideis biguttatis, brevissime stipitellatis.

Hab. in sarmentis Rubi fruticosi in Germania, Gallia, Britannia, Italia. — Var. *appendiculata* Rehm; sporidiis 19 ≃ 2,5, setulâ 3–4 μ. longâ utrinque auctis. Ibidem.

208. **D. Tetrastaga insignis** Fuck. Symb. Myc. App. II. pag. 36. — 2560
Stromatibus sub corticis epidermide effusis, ambitu parenchymateque interiori linea nigra distincta circumscriptis, maculas nigras seu fusco-nigras, repandas, sæpe confluentes et tota sarmenta fere occupantes formantibus; spermogoniis in stromatibus junioribus sparsis, pustulæformibus, integris, demum vertice perforatis, albescentibus; spermatiis oblongis, utrinque obtusis, 3guttulatis, hyalinis, 8–10 ≃ 4; peritheciis ascigeris in stromate corticis parenchymatis interioris nidulantibus, totis immersis, sparsis, globosis, majusculis, nigris, ostiolis prominulis, nigris, plerumque brevibus, conicis, raro magis elongatis, cylindraceis, gracilibus; ascis elongatis; 8sporis, 48 ≃ 8; sporidiis distichis, lato-fusiformibus, parum curvatis, utrinque subobtusis, 4guttulatis, medio non constrictis, hyalinis, 12 ≃ 3,5.

Hab. in cortice sarmentorum Rubi fruticosi et R. idæi in Germania (Fuck.), Gallia (Fabre) et Italia bor. (Spegazzini).

209. **D. Tetrastaga Zaviana** Sacc. Myc. Ven. Spec. p. 139, t. XIV, 2561
fig. 5–7. — Stromate late extenso e corticis substantia non mutata formato neque linea nigra limitato; peritheciis sparsis v. subaggregatis, cortice nidulantibus lignoque adnatis, minutissimis, diam. $^1/_7$ mill. circ., sphæroideis, subdepressis, atris, ostiolis brevissimis epidermidem parum sublevatam vix excedentibus; ascis oblongo-fusoideis, 26–30 ≃ 7–8, 8sporis; sporidiis distichis pro genere minimis, 6 ≃ 3–$3^1/_2$ oblongo-ellipsoideis, medio non constrictis, hyalinis, 2-guttulatis.

Hab. in cortice ramulorum exsiccatorum Rubi fruticosi prope Montegrotto Euganeorum pr. Padova Ital. bor. (G. B. Zava). — Cum Diaporthe vepris et D. rostellata, quibuscum hæc species communem habet matricem, ob sporidiorum fabricam diversissimam ne comparanda quidem.

210. **D. Tetrastaga Lirella** (Mong. et Nest.) Fuck. Symb. myc. pag. 2562
206. *Sphæria Lirella* Moug. et Nest. in Fr. El. II, p. 105. *Gno-*

monia Lirella (Moug. et Nestl.) Auersw. Syn. Pyr. p. 22, t. 5, f. 61 et t. 10, f. 141. — Peritheciis sparsis vel subseriatis, epidermide atrata tectis eique detractæ adhærentibus, depresso-sphæroides, basi cupulæ instar collapsis, ostiolis verticalibus papilliformibus, epidermidem non perforantibus, nigris, latit. circiter 250 μ.; ascis creberrimis clavatis in pedicellum acutum attenuatis, 38–48 ≃ 7 octosporis; sporidiis distichis, fusoideo-elongatis, 4-guttulatis, hyalinis, 10 ≃ 2.

Hab. ad caules Spiraeæ Ulmariæ exsiccatos in Fennia, Britannia, Gallia, Germania, Belgio, et Kamschatka.

211. **D. Tetrastaga incarcerata** (B. et Br.) Nits. Pyr. Germ. p. 297, 2563
Diatrype incarcerata B. et Br. Ann. N. H. n. 842. — Stromate plerumque late effuso, sæpe ambiente, rarius brevi, maculæformi, omnino immerso, strato extimo, tenui, nigricante, peridermio arctissime adhærente obducto v. rarius tandem ex parte nudato; peritheciis ordine valde inæquali sparsis, corticis interioris parenchymati totis innatis, minutis, e globoso depressis, in collum tenue, breve constrictis; ostiolis in plerisque abbreviatis, peridermium perforatum v. fissum parum tantum superantibus, rarius elongatis, cylindricis vel nodulosis, flexuosis; ascis oblongis vel subcylindricis, basim versus sensim ac longiuscule attenuatis, membrana crassiuscula structis, octosporis, 69–75 ≃ 0–10; sporidiis distichis v. oblique monostichis, oblongis v. subcylindricis, rectis, utrinque obtusiusculis, immo rotundatis, bicellularibus, quadriguttatis, medio plerumque haud constrictis, hyalinis, 15–18 ≃ 4–5. — Spermogonia phomatoidea minima: spermatiis 7 ≃ 2, biguttatis; basidiis 24–30 ≃ 7 curvulis.

Hab. in ramis emortuis Rosæ caninæ in Britannia, Gallia, Germania.

212. **D. Tetrastaga Murrayi** (B. et C.) Sacc., *Sphæria Murrayi* B. 2564
et C. North Amer. Fungi n. 934. — Peritheciis epidermide tectis prominulis; ascis lanceolatis; sporidiis oblongis centro constrictis quadrinucleatis, dein 1-septatis.

Hab. in ramis Pyri Mali, New England, Amer. bor. (Murray). — Perithecia subinde supra albido-pilosula, an e mucedine heterogenea?

213. **D. Tetrastaga ambigua** Nits. Pyr. Germ. p. 311. — Stromate 2565
ambitu et magnitudine maxime vario, mox ramos longe ambiente, mox brevissimo, cortici lignoque supposito omnino immerso, nigro-limitato, peridermio haud decolorato, facile solubili, cribrose per-

forato velato; peritheciis majusculis, globosis, rarius parum depressis, rarissime mutua pressione angulatis, cortici interiori plus minus alte immersis, immo passim ligno supposito infossis, ordine vario sparsis, haud raro acervatim densissimeque stipatis, collo brevi instructis; ostiolis plerumque abbreviatis, peridermium perforatum vix superantibus, rarius contra elongatis, sub peridermio relaxato in corticis interioris superficie nigrefacta decumbentibus, flexuosis, cylindricis v. basim versus sensim incrassatis; ascis anguste oblongis v. clavatis, octosporis, 60 ≃ 8–10; sporidiis subdistichis, anguste fusiformibus, utrinque acutis, hyalinis, rectis, bicellularibus, medio haud constrictis, 15 ≃ 3,5–4.

Hab. in ramulis corticatis Pyri communis in Germania et Italia boreali.

214. **D. Tetrastaga Radula** Nits. Pyr. Germ. p. 313. — Stromate plerumque brevi effuso, maculæformi, toto immerso, strato nigricante cincto, peridermio arcte adhærente, peritheciis parum exstantibus pustulatim elevato, denseque cribroseque perforato tecto; peritheciis exiguis e globoso depressis v. basi applanatis, semiglobosis, in corticis parenchymate nidulantibus, ordine vario sed plerumque densissime sparsis, collo brevissimo, ostiolo minimo, abbreviato instructis; ascis anguste oblongis, octosporis, 60–66 ≃ 9–10; sporidiis distichis v. in inferiore asci parte monostichis, anguste oblongis v. fusiformibus, utrinque acutiusculis, plerumque rectis, hyalinis, bicellularibus, quadriguttulatis, medio septifero tandem constrictis, 14–15 ≃ 4. 2566

Hab. ad ramos siccos Pruni spinosæ in Germania et Gallia. — Quoad *Sph. Radulam* Pers. cfr. Syll. nostra n. 578.

215. **D. Tetrastaga oligocarpa** Nits. Pyr. Germ. p. 308. — Stromate latissime effuso, ambiente, ramorum cortici lignoque toto immerso, strato extimo nigricante, tenui, varie flexuoso circumscripto, peridermio nequaquam decolorato, arctissimeque adhærente obducto; peritheciis majusculis, primum globosis, deinde depressis v. basi applanatis, in corticis interioris parenchymate enatis, basi ligni suppositi superficiei affixis, immo parum insculptis, ordine valde inæquali sed plerumque laxissime sparsis, multo rarius stipatis et stroma valseum æmulantibus; collis brevissimis, ostiolis minimis, punctiformibus, abbreviatis per peridermii rimulas perexiguas angustissimasque, transversim directas rumpentibus, haud exstantibus; ascis anguste oblongis vel clavatis, octosporis, 54–60 ≃ 7–9; sporidiis distichis vel oblique monostichis, fusiformibus utrinque 2567

obtusis, subcylindricis, rectis, subhyalinis, bi-cellularibus, quadriguttatis, ad septum medium haud constrictis, 12–14 ≃ $3^1/_2$.

Hab. in ramis siccis Pruni spinosæ prope Münster Germaniæ (Füisting).

216. **D. Tetrastaga viridarii** Sacc. Mich. II, p. 301. — A *D. oligocarpa* Nits. differt ascis sporidiisque tertia parte majoribus, ostiolis quandoque paululum extantibus, crassiusculis, obtusis (ascis subfusoideis 70–80 ≃ 8–12; sporidiis ovato-fusoideis, 15–16 ≃ 5, constricto-1-septatis, utrinque obtusiusculis, 4-guttulatis, hyalinis). 2568

Hab. in ramis corticatis Pruni Lauro-cerasi, Padova, Italia bor. (Bizzozero).

217. **D. Tetrastaga Rehmii** Nits. Pyr. Germ. pag. 301. — Stromate plerumque late effuso ramulosque ambiente, cortici lignoque omnino immerso, strato extimo, atro circumscripto, peridermio peritheciorum ostiolis erumpentibus, abbreviatis perforato vel fisso, ceterum haud mutato nec decolorato, velato; peritheciis minutissimis, globosis v. paullo depressis, in cortice interiore nidulantibus, ordine subæquali denseque sparsis v. sæpius 2–4 densius stipatis, in collum tenuissimum, brevissimum abrupte attenuatis; ostiolis perexiguis nec elongatis, nunc singulatim, nunc 2–4 una erumpentibus peridermiique lacinias arrectas haud superantibus; ascis anguste clavatis v. subcylindricis, octosporis, plerumque 48–57 ≃ 6–7; sporidiis subdistichis vel oblique monostichis, subcylindricis, rectis, hyalinis, bicellularibus, quadriguttatis, medio haud constrictis, perexiguis, 10–13 ≃ $2^1/_2$. 2569

Hab. in ramis tenuioribus Sorbi Aucupariæ prope Sugenheim Germaniæ (Rehm).

218. **D. Tetrastaga Cerasi** Fuck. Symb. myc. App. I, p. 319, Sacc. Myc. Spec. p. 138, t. XIII, fig. 53–55. — Stromate subcorticali, late effuso lignoque atro circumscripto; peritheciis in cortice interiori nidulantibus, minutis, globosis, plerumque in gregibus orbicularibus dispositis, ostiolis minutis, subcylindraceis, obtusis, atris, in corticis rimulis excavatis, atris orbicularibus irregularibusve erumpentibus, epidermidem corticis non superantibus; ascis oblongis, 8sporis, 20–55 ≃ 8–9 p. sporif.; sporidiis distichis, oblongo-fusiformibus, utrinque obtusis, sed minutissime acute appendiculatis, 4guttulatis, medio parum constrictis, hyalinis, 12–14 ≃ 3,7–5. 2570

Hab. in ramis corticatis Pruni Avium et P. Cerasi in Germania et Italia boreali. — *D. Rehmii* et *D. revellenti* affinis.

219. **D. Tetrastaga Raveneliana** Thüm. et Rehm, Fungi Amer. tri- 2571

gint. n. 4 et in Myc. univ. n. 865. — Stromate tenui, subeffuso; peritheciis gregariis, mediis, primo tectis demum epidermidem perforantibus eaque cinctis, orbiculato- vel elliptico-prominentibus, in stromate nidulantibus, globosis, ostiolis subpapillatis, nucleo sordido-albescente; ascis fusiformibus vel longe ellipticis, tenerrimis, subovatis, utrinque acutatis, basi angustatis, octosporis, 60 ≃ 8–9; sporidiis distichis, plerumque bicellularibus, ad septum non constrictis, cellulis æqualibus, longe ellipsoideis, utrinque obtusis, quadrinucleatis, hyalinis, 12 ≃ 4; paraphysibus (genuinis?) numerosissimis, brevibus, flexuosis, septatis, apice obtusis, simplicibus hyalinis.

Hab. ad ramulos emortuos Quercus albæ Aiken Carolinæ australis in America septentrionali (H. W. Ravenel.).

220. **D. Tetrastaga Quercus** Fuck. Symb. myc. App. II, p. 36. — 2572
Stromate nigro, in cortice interiore late effuso lignumque linea nigra circumdante, corticis superficiem non colorante; peritheciis in cortice interiore nidulantibus, minutis, nigris, globosis, collis plerumque brevibus, cylindraceis, atris, in disculis nigris erumpentibus, epidermidem fissam vix superantibus, raro longe exsertis; ascis oblongis, sessilibus, 8sporis, 44 ≃ 8; sporidiis distichis, fusiformibus, rectis inæquilateralibusve, 4guttulatis, hyalinis, 12 ≃ 5.

Hab. in ramis siccis Quercus, rarius, prope Œstrich Germaniæ.

221. **D. Tetrastaga insularis** Nits. Pyr. p. 294. — Stromate effuso, 2573
in plerisque saltem brevi, ramorum cortici lignoque innato, corticis interioris superficiem tandem ex brunneo nigrificante, stratoque nigro intus limitato; peritheciis minutis, subglobosis v. mutua pressione angulatis, in cortice interiore nidulantibus, ordine vario sparsis, sæpissime vero dense stipatis, collo brevissimo ostioloque tenuissimo, maxime elongato, cylindrico piliformi, flexuoso instructis; ascis clavatis, octosporis, 56 ≃ 9; sporidiis distichis, fusiformibus v. subcylindricis, utrinque obtusiusculis, bi-cellularibus, quadriguttatis, rectis, rarius inæquilateralibus, medio tandem parum constrictis, 12–16 ≃ 3–4.

Hab. in ramis tenuioribus Quercus pedunculatæ prope Münster Germaniæ et prope Treviso Italiæ bor.

222. **D. Tetrastaga multipunctata** Fuck. Symb. myc. App. II, p. 37. 2574
— Peritheciis sub epidermide adhærentibus, media magnitudine, atris, depresso-globosis, ostiolis brevibus, papillæformibus, perforatis, demum prominulis, corticis superficiem dense punctulatam reddentibus; ascis cylindraceis, 8sporis, 108 ≃ 8; sporidiis oblique

monostichis, oblongo-ovatis, utrinque obtusis, uniseptatis, ad septum constrictis, pallide fuscis, 16 ≃ 8.

Hab. in ramis siccis Coryli Avellanæ, Vallengin prope Neuchâtel Helvetiæ (Morthier). — Sporidia iis *D. fibroscæ* analoga.

223. **D. Tetrastaga revellens** Nits. Pyr. Germ. p. 302, Sacc. Myc. Ven. Spec. p. 138, t. XIII, f. 50–52. — Stromate nunc peritheciis 2–6 arctius coalitis valseum æmulante, plerumque vero longe lateque effuso, ramos ramulosque, præsertim basim versus ambiente, multo rarius breviore, maculæformi, toto immerso, strato nigricante circumscripto, peridermio haud decolorato v. rarius denique obscurato obducto; peritheciis minutis, e globoso depressis, immo lentiformibus, cortici interiori immersis, ordine vario sparsis, sæpissime vero 2–6 dense aggregatis, tunc peridermium in pustulas exiguas elevantibus; collis brevissimis; ostiolis minutis abbreviatis, peridermium haud superantibus; ascis anguste clavatis v. subcylindricis, octosporis, 50–60 ≃ 7–8; sporidiis subdistichis v. oblique monostichis, anguste fusiformibus, subcylindricis, utrinque obtusiusculis, rectis v. parum curvatis, subhyalinis, bi-cellularibus, medio haud constrictis, 11–14 ≃ 3–6. — Spermogonia phomatoidea: spermatiis oblongis, 2-guttatis, 6–7 ≃ 3. 2575

Hab. in ramis putrescentibus Coryli Avellanæ et C. Lambertianæ in Germania, Gallia et Italia. — Datur quoque forma ostiolis elongatis.

224. **D. Tetrastaga tenuirostris** Nits. Pyr. Germ. p. 293. — Stromate plus minus late effuso, cortici lignoque supposito, specie haud mutato toto immerso, nigrolimitato, peridermio peritheciorum ostiolis perforato, ceterum haud decolorato arctissimeque adhærente tecto; peritheciis corticis interioris parenchymati omnino infossis, ordine valde inæquali sparsis, sæpissime gregatim densius stipatis e globoso mox plus minus depressis, haud raro præterea mutua pressione angulatis, in collum breve, tenuissimum abrupte attenuatis; ostiolis in plerisque vehementer elongatis, tenuissimis, filiformi-cylindricis, longissime extantibus, varie flexuosis, singulatim v. sæpius 2–6 fasciculatim erumpentibus; ascis oblongis v. clavatis, octosporis, 60 ≃ 7–8; sporidiis subdistichis, fusiformibus, utrinque obtusis, rectis v. rarius inæquilateralibus, bi-cellularibus, quadriguttatis, rarissime denique parum torulosis, hyalinis, 13–14 ≃ 3. 2576

Hab. in ramis Juglandis regiæ pr. Œstrich Rhenogoviæ. — Verisimiliter *Sphæria Juglandis* Curr. Simpl. Sphær. n. 332,

fig. 110 sistit formam brevirostrem: sporidiis 4-guttulatis, 10-13 μ. long.

225. **D. Tetrastaga juglandina** (Fuck.) Nits. Pyr. germ. pag. 281. 2577
Aglaospora juglandina Fuck. Fungi rhen. n. 2159. — Stromate longe lateque effuso, ramos etiam crassiores ambiente eorumque cortici crasso innato, strato nigricante undique cincto, superficiem corticis interioris, peridermio relaxatum hinc inde desquamato colore ex brunneo tandem nigricante tingente; peritheciis ordine inæquali sed plerumque dense sparsis, immo hinc inde densissime stipatis, globosis, rarius depressis v. mutua pressione angulatis, majusculis, corticis parenchymati plus minus alte, semper fere totis immersis; collis sub peridermio relaxato totis v. pro maxima parte liberis, plerumque maxime elongatis, cylindricis, sæpe nodulosis, secundis v. varie flexuosis, raro subrectis, basi vix incrassatis; ascis anguste clavatis v. oblongis, immo subcylindricis, octosporis, 51-64 ≃ 7-8; sporidiis distichis, fusiformibus, utrinque acutiusculis, rectis, bicellularibus, quadriguttatis, medio tandem constrictis, hyanis, 12-18 ≃ 4-5. — Spermogonia phomatoidea: spermatiis fusoideis, 8-9 ≃ 2, bi-guttatis, basidiis 15 μ. longis suffultis.

Hab. in ramulis corticatis Juglandis regiæ in Rhenogovia et in Italia boreali.

226. **D. Tetrastaga veneta** Sacc. et Sp. Mich. I, p. 383. — Stroma- 2578
te ramulos corticatos hinc inde ambiente et varie marmorante linea stromatica endoxyla nulla; peritheciis cortice nidulantibus, globulosis, $^1/_4$ mill. diam., ostiolo papillato peridermium vix excedente; ascis fusoideis, aparaphysatis, octosporis; sporidiis distichis, oblongis, 13-17 ≃ 3, constricto-1-septatis, curvulis, 4-guttulatis, hyalinis.

Hab. in ramis corticatis Oleæ europææ, Conegliano, Italiæ borealis.

227. **D. Tetrastaga Phillyreæ** Cooke Grev. VII, p. 81. — Stromate ma- 2579
culiformi subelliptico v. irregulari, variegato; peritheciis sparsis; ostiolis exiguis, peridermium perforantibus; ascis clavatis; sporidiis oblongis, 4-nucleatis, dein 1-septatis, hyalinis.

Hab. in ramis corticatis Phillyreæ in Britannia.

228. **D. Tetrastaga resecans** Nits. Pyr. Germ. p. 314. Sacc. Myc. 2580
Ven. Sp. p. 138, t. XIII, fig. 56-58. *Valsa Syringæ* Cooke F. Br. I. n. 492. — Stromate, latissime effuso, ramos plerumque in longitudinem integram infestante, cortici lignoque supposito omnino immerso, nigrolimitato, peridermio acte adhærente, poris v. rimu-

lis longitudinaliter directis perforato, haud decolorato obducto; peritheciis minutis, globosis v. parum depressis, corticis interioris parenchymati insculptis ordine subæquali laxeque sparsis, multo rarius seriatim v. gregatim dense stipatis, in collum brevissimum, tenuissimum abrupte attenuatis; ostiolis minutissimis, abbreviatis, ex peridermii foraminibus haud extantibus; ascis clavatis v. oblongis, octosporis, 60–76 ≃ 12; sporidiis subdistichis, oblongis, v. obtuse fusiformibus, rectis, subhyalinis, bicellularibus, quadri–, rarius biguttulatis, medio septifero constrictis, 12–18 ≃ $4^1/_3$–5.

Hab. in ramulis emortuis Syringæ vulgaris in Germania, Ital. bor., Britannia, Gallia. — Teste Rehm. Asc. n. 334 paraphyses adsunt articulatæ.

229. **D. Tetrastaga occultata** (Fr.) Sacc., *Sph. occultata* Fr. Elench. II, p. 72. *Sphæria rugosa* Wallr. Crypt. n. 3765 (?). — Effusa, obtecta, stromate mere corticali linea flexuosa nigra circumscripto, ostiolis sparsis punctiformibus. 2581

Hab. in ramis Syringæ in Germania (Wallroth). — Perithecia æqualia nullo modo circinant et ostiola omnia distincta. Perithecia exigua, in cortice interiori nidulantia, sparsa, corticis fibris distincta, globosa, pallida, omnino erecta, collibus brevibus aucta, lineolis nigris flexuosis laxe circumscripta. Ostiola in cortice lævigato erumpentia, distantia, subglobosa, lævia, demum umbilicata. «Verisimillime species eadem ac *D. resecans* Nits., quæ vero multo posterior».

230. **D. Tetrastaga nodosa** Fuck. Symb. myc. p. 210. — Stromate pallido, sub corticis epidermide late effuso; peritheciis ascigeris tectis, in cortice nidulantibus, plerumque fasciculatis, globosis, majusculis, nucleo griseo, rostris teretibus, longe exsertis, basi valde nodosis, atris; ascis oblongo–lanceolatis, 8sporis, 50 ≃ 5; sporidiis distichis, oblongo–lanceolatis, utrinque obtusis, subinæquilateralibus, uniseptatis, loculis singulis 2guttulatis, hyalinis, 10 ≃ $2^1/_2$. Spermogonia phomatoidea; spermatiis oblongo–lanceolatis, 8 ≃ 3, biguttatis, hyalinis. 2582

Hab. in ramis siccis corticatis Syringæ vulgaris in Germania et Italia boreali.

231. **D. Tetrastaga obscurans** Sacc. Fungi Ven. Ser. IV, pag. 7. — Stromate ramulos late ambiente, nunc plagulas sparsas efformante, linea nigra per lignum immutatum excurrente limitato; peritheciis discretis nunc 4–6 subacervatis zonaque nigra cinctis, in cortice parum protuberante et obscurato nidulantibus sphæroideis, depres- 2583

sis, $^1/_4$ mill. diam., atris, ostiolis brevissimis epidermidem non superantibus sed minute punctulantibus; ascis crasse fusoideis, 45–50 ≃ 12, 8sporis; sporidiis distichis, rarius oblique monostichis, fusoideis, utrinque obtusiusculis 12 ≃ $4^1/_2$–5, constricto-tenuiter 1-septatis, 4-guttulatis, hyalinis.

Hab. in cortice ramulorum Fraxini Orni, Selva prope Treviso, Italiæ bor. — Cum *Diap. scobina* Nits. et *Diap. controversa* Nits. in Fraxino excelsiore quoque degentibus non comparanda.

232. **D. Tetrastaga scobina** Nits. Pyr. Germ. p. 293. — Stromate 2584
latissime effuso ramosque plus minus longe ambiente, substrato omnino immerso ejusque substantiam haud decolorante, strato solo extimo, profunde in lignum penetrante nec non corticis interioris superficie sensim nigricante; peritheciis parvulis, in cortice interiore nidulantibus, ordine subæquali ac dense sparsis subglobosis v. paullo compressis, haud raro 2–4, immo pluribus arctius stipatis, tunc sæpe angulosis, in collum brevissimum abrupte attenuatis; ostiolis tenuissime cylindricis, basim versus vix incrassatis, mox breviter tantum mox valde elongatis, rectis, obliquis v. decumbentibus, singulatim v. 2–4 gregatim, tunc per majora peridermii foramina v. rimulas erumpentibus, nunc parum tantum v. vix exsertis, nunc contra longe extantibus, piliformibus; ascis anguste fusiformibus v. clavatis, octosporis, 51–60 ≃ 9; sporidiis subdistichis, oblongis, fusiformibus v. subcylindricis utrinque plus minus obtusis, plerumque rectis, quadriguttatis, bi-cellularibus, medio haud constrictis, subhyalinis, 11–12 ≃ 4.

Hab. in ramis emortuis Fraxini excelsioris in Germania et in Britannia.

233. **D. Tetrastaga controversa** (Desm.) Fuck. Symb. myc. App. I. 2585
Sphæria controversa Desm. 8 Not. 1841, p. 12 (p. p. *Fraxino*). — Circumscripta, stromate corticali maculiformi, fusco-nigricante; peritheciis immersis, ostiolis erumpentibus prominulis; ascis oblongo-subclavatis, 56 ≃ 8; sporidis octonis biseriatis, hyalinis, fusiformibus, uniseptatis, non constrictis, 12 ≃ 4, 4-guttulatis, hyalinis.

Hab. in ramis exsiccatis Fraxini excelsioris in Gallia, Belgio et Germania.

234. **D. Tetrastaga ciliaris** (Curr.) Sacc. *Sphæria ciliaris* Curr. Micr. 2586
Journ. VII, p. 232, t. 11, fig. 15 et Cooke Handb. n. 2639. — Peritheciis subcutaneis, globulosis, minutis (supra *Helminthosporii* hyphas gerentibus), ostiolo papillato, perforante; ascis clavulatis,

octosporis; sporidiis distichis, anguste ovato-oblongis, subconstrictis, 4-guttatis, utrinque acutis, hyalinis, 13–20 μ. longis.

Hab. in ramis corticatis Fraxini in Britannia (Currey) et Belgio (Lambotte).

235. **D. Tetrastaga discutiens** (Berk.) Sacc. *Sphæria discutiens* Berk. 2587
Engl. Fl. V, p. 245. Curr. Linn. Trans. XXII, t. 47, fig. 112. — Late effusa; peritheciis cortice interiore nidulantibus, ostiolis longis, cylindricis, scabriusculis, peridermium perforantibus et denique excutientibus; stromate nigricante; ascis octosporis; sporidiis biseriatis v. stipatis, fusoideo-navicularibus, 1-(3?)-septatis, 12–13 μ. longis, hyalinis.

Hab. in ramis Ulmi campestris in Britannia.

236. **D. Tetrastaga alnea** Fuck. Symb. mycol. p. 207, Nits. Pyr. Germ. 2588
p. 312. — Stromate plus minus late effuso, mox ramos ramulosque longe ambiente, mox contra, sed rarius plagas breviores, varie circumscriptas occupante, cortici lignoque toto immerso, strato nigricante limitato, peridermio haud decolorato, arcte adhærente sed poris rimulisve numerosissimis minutissimisque cribrose perforato, scabroso tecto; peritheciis minimis e globoso mox depressis, ordine subæquali densissimeque sparsis, corticis parenchymati plus minus alte immersis, collo brevissimo ostioloque minimo, abbreviato, punctiformi instructis; ascis oblongis v. subcylindricis, octosporis, 52–60 ≃ 7–9; sporidiis subdistichis, fusiformibus, utrinque obtusiusculis, subhyalinis, rectis, bi-cellularibus, quadriguttulatis, medio septifero tandem constrictæ, 12–13. — Spermogonia phomatoidea; spermatiis fusoideis 7 ≃ 3, biguttatis.

Hab. in ramis emortuis Alni glutinosæ in Germania et Italia boreali.

237. **D. Tetrastaga Lebiseyi** (Desm.) Niessl, Beitr. p. 54. *Sph. Lebiseyi* 2589
Desm. Ann. Sc. nat. XV. (1841), pag. 144. — Stromate expanso, sæpe vix evoluto sed linea atrata limitato; peritheciis, gregariis, solitariis, rarissime aggregatis, majusculis, 300–400 μ. diam., atris, subglobosis, demum collabentibus, basi impressa concava, peridermio detracto adhærentibus, ostiolo elongato tenuissimo teretiusculo curvato facile diffracto, 250 μ. longo; ascis oblongis sessilibus, 8sporis, 30 ≃ 5–6; sporidiis subdistichis oblongis, utrinque attenuatis, obtusiusculis rectis, uniseptatis et parum constrictis, 2–4 guttulatis, subhyalinis, 8–9 ≃ 2–3.

Hab. in ramulis Aceris Negundinis prope Caën Galliæ (Roberge).

238. **D. Tetrastaga dubia** Nits. Pyr. Germ. p. 316. — Stromate la- 2590
tissime effuso, ramos longe ambiente eorumque cortici lignoque supposito toto immerso et nigrolimitato, peridermio adhærente, immutato tecto; peritheciis magnitudine media, globosis, exsiccando plerumque collapsis, corticis strato supremo infossis, peridermio detracto adhærentibus, ordine inæquali ordinatis, sæpissime vero 3–6 in modum valseum dense stipatis; collis brevissimis, tenuissimis, ostiolis minimis per peridermii poros perexiguos erumpentibus, haud extantibus; ascis clavatis v. oblongis, octosporis, 52–72 ≃ 8–9; sporidiis subdistichis, oblongis, utrinque obtusiusculis, rectis, subhyalinis, bicellularibus, bi-, rarius quadriguttulatis, medio septifero constrictis, 12–16 ≃ 4–6.

Hab. in cortice ramulorum Aceris Negundinis, Höxter Germaniæ, Conegliano Ital. bor. — *Diaporthe Lebiseyi* (Desm.) Niessl vere diversa est. An *Phoma Lebiseyi* Sacc. huic vel *D. dubiæ*, ut spermogonium, pertineat statuere nequeo.

239. **D. Tetrastaga blepharodes** (B. et Br.) Sacc. *Sphæria blepha-* 2591
rodes B. et Br. in Ann. N. H. n. 978, t. 17, f. 31. — Peritheciis tectis, depresso-globosis; ostiolis peridermium perforantibus perithecio duplo longioribus; ascis clavato-fusoideis; sporidiis biseriatis, fusoideis, in æquilateralibus, guttulatis, 12–13 μ. longis.

Hab. in ramulis Aceris Pseudoplatani, Mossburnford Britanniæ (A. Jerdon).

240. **D. Tetrastaga Beckhausii** Nits. Pyr. Germ. p. 295. *D. circum-* 2592
scripta Fuck. Fung. rhen. 1991 (nec Otth). — Stromate latissime effuso, ambiente ramos sæpissime integros occupante, substrato toto immerso, strato extimo, profunde descendente, nigro-limitatis, corticisque interioris superficiem demum nigrificantibus; peritheciis minimis, cortici interiori totis infossis, ordine fere æquali densissimeque sparsis, globosis v. paullum depressis, in collum brevissimum, tenue subito attenuatis; ostiolis per peridermii poros exiguos singulatim erumpentibus, mox brevissimis, paullo tantum v. vix exertis, mox plus minus elongatis, e basi conica cylindricis, crassiusculis, rectis v. obliquis; ascis anguste oblongis v. subcylindricis, octosporis, 45–56 ≃ 7; sporidiis angustissime fusiformibus, subcylindricis, hyalinis, quadriguttatis, denique bi-cellularibus, rectis v. rarius inæquilateralibus, utrinque sæpe acutiusculis, 10–14 ≃ 3–4. — Spermogonia phomatoidea: spermatiis anguste filiformibus 10–12 ≃ 1, incurvis.

Hab. in ramis corticatis Viburni Opuli et V. Lantanæ in Germania (Beckhaus, Fuckel), in Italia bor. (Sacc.).

241. **D. Tetrastaga circumscripta** Otth, sec. Nits. in Fuck. Symb. myc. p. 207 (nec *Sph. circumscripta* Mont.) *D. leucostroma* Nits. in Fuck. F. rhen. n. 1989. — Stromate effuso, maculiformi, corticem occupante, in ligni superficie lineis tortuosis nigris circumscripto; peritheciis cortice immersis, lignoque adnatis, globulosis, gregariis; ostiolis perforantibus conicis plus minusve exertis; ascis fusoideis, apice lumine 2-foveolato, 50-60 ≃ 8, aparaphysatis, octosporis; sporidiis distichis cylindraceo-fusoideis, utrinque obtusiuscule rotundatis, 11-15 ≃ 3-4, constricto-1-septatis, 4-guttulatis, hyalinis. 2593

Hab. in ramis siccis adhuc stantibus Sambuci nigræ et S. Ebuli in Germania, Italia et Gallia.

242. **D. Tetrastaga cinerascens** Sacc. Fungi Ven. Ser. IV, p. 8. — Stromate ramos late et continue ambiente per lignum cinerascens usque ad medullam excurrente tenuiter nigro-limitato, peridermio immutato permanente; peritheciis discretis, gregariis, in cortice nidulantibus, globoso-depressis, $^1/_3$ mill. diam., ostiolis cylindricis peridermium perforantibus et nonnumquam parum exertis, flexisque; ascis oblongo-fusoideis, 8sporis, 50-55 ≃ 6-7; sporidiis oblongo-fusiformibus, constricto-1-septatis, utrinque acutiusculis, 12-15 ≃ 3-4, 4-guttulatis, hyalinis; spermogoniis in cortice exteriore nidulantibus e globoso depressis, atris; spermatiis fusoideis, 8 ≃ 2, hyalinis, 2-guttulatis. 2594

Hab. in ramis corticatis Fici Caricæ, Selva, Treviso, Italiæ borealis.

243. **D. Tetrastaga Ophites** Sacc. Myc. Ven. n. 214. *Sphæria Ketmiæ* Ces.? — Stromate late effuso corticem lignique superficiem maculis oblongis, variis, fuscis, nigrisque marmorante intusque nigro-limitato; peritheciis gregariis globulosis, mediocribus, cortice (multo rarius ligno) infossis, ostiolis perforantibus, filiformibus, perithecio longioribus; ascis fusoideis, octosporis, 50-60 ≃ 9-10; sporidiis distichis breve fusoideis constricto-1-septatis, 12-13 ≃ 4-5-5, 4-guttulatis, utrinque obtusiusculis, hyalinis. 2595

Hab. in ramis emortuis Hibisci syriaci in Italia boreali et Gallia.

244. **D. Tetrastaga Ryckholtii** (West.) Nits. Pyr. Germ. pag. 319. *Sphæria Ryckholtii* West. in Kickx Fl. Crypt. Fl. I, p. 323 (*Valsa*). — Stromate effuso, ramulos plerumque ambiente intus, nigro- 2596

limitato, peridermio arcte adhærente, haud decolorato tecto; peritheciis parvulis, subglobosis v. basi applanatis, ordine vario dispositis, sæpius pluribus aggregatis, vertice plerumque parum protuberantibus, pustulas minimas, peridermio obductas formantibus, basi contra ligno supposito plus minus alte immersis; ostiolis crassiusculis, abbreviatis sed peridermium poris exiguis perforatum sæpe parum superantibus; ascis oblongis, rarius clavatis, octosporis, 50-60 ≃ 9-12; sporidiis distichis v. conglobatis, fusiformibus v. subcylindricis, utrinque obtusiusculis v. rotundatis, rectis, hyalinis, bicellularibus, bi-quadriguttulatis, medio septifero constrictis, 12-16 ≃ 4-5. — Spermogonia phomatoidea: spermatiis obtuse fusoideis, 6-8 ≃ $2^1/_2$, biguttatis, longiuscule stipitatis.

Hab. in trunculis ramisque Symphoricarpi racemosæ in Germania, Belgio, Britannia, Italia.

245. **D. Tetrastaga Rhois** Nits. Pyr. Germ. p. 315. — Stromate ple- 2597
rumque ramulos longe ambiente substrato toto innato, strato extimo nigricante cincto, peridermio adhærente, peritheciorum ostiolis perforato, ceterum immutato velato; peritheciis minimis, globosis v. depressis in corticis interioris parenchymate nidulantibus, ordine inæquali sparsis, collo brevi, ostiolo minutissimo, peridermium perforatum haud superante instructis; ascis oblongis v. clavatis, octosporis, 64 ≃ 10-12; sporidiis subdistichis, v. oblique monostichis, oblongis, utrinque obtusis, hyalinis, rectis, bicellularibus, quadriguttulatis, medio septifero constrictis, 16 ≃ 5-6.

Hab. in ramulis emortuis Rhois Cotini in Horto botanico Münster Germaniæ. — Teste Niessl, huc spectaret *Valsa Rhois* Cooke (Cfr. Syll. nostra n. 2382), quod vero ulterius est inquirendum.

246. **D. Tetrastaga retecta** (Fuck. et Nits.) in Nits. Pyr. Germ. 2598
pag. 304. — Stromate late effuso, ramulos enecatos ambiente substrato omnino immerso strato extimo nigricante circumscripto, corticis strato supremo immutato primo velato, deinde, illo hinc inde secesso, maculis tandem aterrimis, plerumque minutis corticem interiorem marmorante; peritheciis perexiguis, e globoso, plus minus depressis, ordine vario sed plerumque laxe sparsis, cortici insculptis, in collum brevissimum subito attenuatis; ostiolis minimis, abbreviatis, punctiformibus; ascis anguste clavatis, v. subcylindricis, octosporis, 60-63 ≃ 6-7; sporidiis subdistichis, subcylindricis, utrinque obtusissimis, rotundatis, subyalinis, bi-cellularibus,

quadriguttatis, medio septifero haud constrictis, rectis, 13–16 ≃ 3–4. — Spermogonia sistunt *Phomam sticticam* B. et Br.

Hab. in ramis siccis Buxi sempervirentis in Germania, Gallia et Italia.

247. **D. Tetrastaga spissa** Sacc. et Sp. Mich. I, p. 385. — Stromate obsoleto nullove; peritheciis dense gregariis, corticolis, globulosis, $^1/_3$ mill. diam., ostiolis breve excedentibus, rostellatis; ascis fusoideis, utrinque obtusiusculis, 40–45 ≃ 7–8, aparaphysatis, octosporis; sporidiis distichis v. oblique monostichis, fusoideis curvulis, 10–11 ≃ $3^1/_2$, medio constrictis, utrinque obtusiusculis, 4-guttulatis, hyalinis. 2599

Hab. in ramulis junioribus Catalpæ syringifoliæ, Conegliano, Ital. bor.

248. **D. Tetrastaga velata** (Pers.) Nits. Pyr. Germ. p. 287. *Sphæria velata* Pers. Syn. p. 32. — Stromate latissime effuso, ramulos, ramosque crassiores longissime ambiente, intus lineis atris, varie flexuosis lignum marmorante nec non corticis interioris superficiem tandem ex sordide brunneo nigrificante; peritheciis parvulis, e globoso mox plus minus depressis, immo lentiformibus, corticis interioris strato supremo, raro profundius infossis, ordine fere æquali ac satis dense sparsis, passim 2–4 aggregatis, in collum plerumque brevissimum abrupte attenuatis; ostiolis crassiusculis, breviter elongatis, parum tantum vel vix exertis, cylindricis v. basim versus incrassatis, singulatim v. rarius 2–6 immo pluribus gregatim erumpentibus, raro sub peridermio relaxato solito longioribus, decumbentibus, rarissime longe exertis; ascis anguste fusiformibus v. subcylindricis, octosporis, subsessilibus, 56–64 ≃ 8–10; sporidiis distichis v. rarius oblique monostichis, anguste fusiformibus, obtusiusculis, immo subcylindricis, plerumque rectis hyalinis, quadriguttatis, 2-(4?)-cellularibus, rarissime medio tandem parum constrictis, 10–15 ≃ 3. Spermogonia phomatoidea; spermatiis 7–9 ≃ 2, biguttatis; basidiis 24–27 ≃ 1, hamatis. 2600

Hab. in ramis corticatis Tiliæ in Germania, Gallia, Italia, Britannia, Suecia et Amer. bor.

249. **E. Tetrastaga Corni** Fuck. Symb. myc. p. 207, t. VI, fig. 39. — Peritheciis ascigeris in corticis stromate nidulantibus, minutis, globosis, tenuissimis, nucleo sordido, ostiolis vix exertis, raro longioribus, cylindraceis, obtusis, atris; ascis lanceolato-clavatis, stipitatis, 8sporis, 60 ≃ 8; sporidiis distichis, lanceolato-fusiformibus, sed utrinque obtusis, curvatis, 4guttulatis, hyalinis, 13 ≃ 4, utrinque 2601

appendiculis minutis, acutis. — Spermogoniis sparsis, sub epidermide nidulantibus, demum erumpentibus et epidermide nigrificata circumdatis, minutis, subglobosis, papillatis; spermatiis cylindraceo-oblongis, curvatis, 2-3guttulatis, 8 ≃ 3; stromate, demum sub spermogoniis explicato et spermogoniorum residua semper gerenti, distincte circumscripto, atro, late effuso.

Hab. in ramulis emortuis Corni albæ, in Germania, Gallia, Italia.

250. **D. Tetrastaga Delogneana** Sacc. et Roum. Reliq. myc. Lib. II, n. 91, t. XIX, f. 4. — Peritheciis hinc inde gregariis, corticolis, basique ligno infossis, lineaque nigra tortuosa exceptis, $^1/_2$ mill. d., nigro-olivaceis; ascis fusoideis subsessilibus, 46–55 ≃ 8, lumine apice bi-foveolato, aparaphysatis, octosporis; sporidiis distichis fusoideis rectiusculis utrinque acutiusculis obsoleteque appendiculatis, 12–14 ≃ 3–$3^1/_2$, 4-guttulatis, 1-septatis hyalinis. 2602

Hab. in ramis corticatis Daphnes Mezerei Malmedy in finibus Galliæ et Germaniæ.

251. **D. Tetrastaga crustosa** Sacc. et Roum. Reliq. myc. Libert. II, n. 92, t. XIX, f. 3. — Peritheciis corticolis, gregariis, stromate crustaceo nigro exceptis, globulosis $^1/_3$–$^1/_2$ mill. d., ostiolo teretiusculo, perithecium sæpe excedente, erumpente; ascis crasse fusoideo-clavatis, 60 ≃ 12–13, subsessilibus, apice obtusatis, lumineque vix vel non foveolato, aparaphysatis, octosporis; sporidiis distichis vel subtristichis, tereti-fusoideis 15–17 ≃ 3–$3^1/_4$, utrinque obtusiusculis, initioque obsolete apiculatis, 1-septatis. levissime constrictis, 4-guttatis, hyalinis. 2603

Hab. in ramis corticatis Ilicis Aquifolii, Malmedy, in finibus Galliæ et Germaniæ.

252. **D. Tetrastaga nobilis** Sacc. et Speg. Mich. I, p. 386. — Stromate ramos corticatos late ambiente et infuscante, linea nigra tortuosa intra lignum limitato; peritheciis gregariis, majusculis corticolis, $^3/_4$ mill. diam., ostiolo vix emergente papillato; ascis clavato-fusoideis, utrinque obtusiusculis, 50 ≃ 7, aparaphysatis, 8sporis; sporidiis oblique 1-stichis, fusoideis, rectis, constricto-1-septaptatis, 13–16 ≃ 4, 4-guttatis, hyalinis, initio appendiculâ utrinque auctis. 2604

Hab. in ramis corticatis Lauri nobilis, Conegliano Italiæ borealis.

253. **D. Tetrastaga Mahoniæ** Speg. Mich. I, p. 456. — Stromate ramos late ambiente per lignum immutatum tortuose et profunde 2605

excurrente, nigrolimitato; peritheciis discretis, globosis, $^1/_3$–$^1/_4$ mill. diam., ligno decorticato vel corticato totaliter vel semiimmersis, ostiolis brevibus, cylindraceo-conoideis, obtusis, exertis; ascis oblongo-fusoideis, 65–75 ≃ 10, octosporis, aparaphysatis; sporidiis distichis vel obliqne monostichis, elliptico-elongatis, 12–14 ≃ 4–4$^1/_2$, utrinque rotundatis, medio constricto-1-septatis, 2-6-guttulatis, hyalinis.

Hab. in ramulis emortuis Mahoniæ Aquifolii, Conegliano Italia bor.

254. **D. Tetrastaga pungens** Nits. Pyr. Germ. p. 296, *D. Strumella* var. *pungens* Karst. Myc. Fenn. II, p. 113. — Stromate longe lateque effuso, ambiente, ramorum cortici lignoque omnino innato, superficiem corticis interioris vel ligni tantum nigrificante; peritheciis ordine subæquali distributis, passim densius aggregatis, sphæroideis, cortici crassiori v. ligno infossis; ostiolis cylindraceis, haud raro nodulosis, flexuosis, singulatim vel gregatim per peridermium fissum erumpentibus, vulgo maxime elongatis vel longissime exsertis; ascis anguste clavatis, octosporis, 54–60 ≃ 7–8; sporidiis fusoideo-elongatis, rectis vel leviter curvulis, 12–16 ≃ 3–4. 2606

Hab. in ramis crassioribus Ribis Grossulariæ in Germania et Ribis nigri in Fennia. — *Diap. pungens* Nits. ut nobis videtur, varietas est tantum *Diap. Strumellæ* (Fr.), orta in truncis ramisque crassioribus locis humidis dejectis (Karst. l. c.).

255. **D. Tetrastaga mitis** Sacc. Mich. II, p. 61. — Stromate effuso obsoleto; peritheciis laxe gregariis, cortice nidulantibus, tumidulisque, globoso-depressis, $^1/_3$ mill. diam., ostiolis, brevissime conoideis; ascis fusoideis, 70–75 ≃ 9–10, apice bifoveolatis, aparaphysatis, octosporis; sporidiis fusoideis, utrinque acutiusculis curvulis, 15 ≃ 3–4, constricto-1-septatis, 4-guttulatis, hyalinis. 2607

Hab. in ramis Ribis rubri corticatis prope Rouen Galliæ (Letendre). — A *Diap. pungente* Nits. (Ribis quoque incola) differt ostiolis abbreviatis, nec pungentibus, aliisque notis.

256. **D. Tetrastaga Landeghemiæ** (West.) Nits. Pyr. Germ. p. 318, *Sphæria Landeghemiæ* West. in Kickx Fl. I, p. 343. — Stromate ambitu et magnitudine maxime vario, mox ramulos ambiente, mox contra, et quidem sæpius, brevi, maculæformi, substrato omnino immerso, strato extimo, nigricante, sæpe usque in medullam centralem descendente undique circumscripto, peridermio haud raro relaxato, peritheciorum ostiolis perforato, ceterum non decolorato obducto; peritheciis minutis, e globoso depressis, lentiformibus, ple- 2608

rumque in corticis interioris parenchymate nidulantibus, rarius ligno supposito adnatis, immo ei insculptis, ordine valde inæquali ordinatis, mox laxissime sparsis, mox 2–4 densius aggregatis, in collum brevissimum, tenue abrupte attenuatis; ostiolis abbreviatis, corticem perforatum haud superantibus; ascis oblongis v. subcylindricis, membrana incrassata structis, octosporis, 60–66 ≃ 9–10; sporidiis subdistichis, fusiformibus, utrinque obtusiusculis, plerumque rectis, hyalinis, bicellularibus, bi-quadriguttulatis, medio septifero tandem parum constrictis, 14–16 ≃ 4. — Spermogonia phomatoidea: spermatiis fusoideis 8 ≃ 2,5, biguttatis, breviuscule stipitatis.

Hab. in ramis emortuis Philadelphi coronarii in Germania Belgio et Italia. — Forma *Deutziæ scabræ* Sacc. Mycol. Spec. p. 139, t. XIII, f. 59–61: ascis 50 ≃ 8; sporidiis 15 ≃ 4. In ramis Deutziæ in Italia bor.

257. **D. Tetrastaga Laschii** Nits. Pyr. Germ. p. 292, *Sphæria rostellata* Lasch. (nec Auct.). — Stromate latissime effuso, ramos ambiente, toto innato, undique nigrolimitato, corticis interioris superficiem nigrificante, peridermio, peritheciorum ostiolis perforato, immutato obducto; peritheciis in corticis parenchymate nidulantibus, majusculis, e globoso mox parum compressis, in collum pertenue abrupte attenuatis, ordine inæquali, plerumque laxe sparsis; ostiolis e basi sæpe conico-dilatata cylindricis, crassiusculis, parum tantum elongatis, per peridermii foramina minuta singulatim vel in rimis longitudinaliter directis ordine lineari pluribus erumpentibus, sed inter se distantibus, paullo tantum v. vix exserti; ascis clavatis v. oblongis, octosporis, 34–60 ≃ 6–8; sporidiis distichis v. oblique monostichis, fusiformibus, utrinque obtusiusculis, plerumque rectis, hyalinis, medio haud constrictis, quadriguttatis bi-cellularibus, 10–16 ≃ 3–4. — Spermogonia *Phomam foveolarem* (Fr.) sistunt. 2609

Hab. in ramis emortuis Evonymi europæi in Germania, Britannia, Gallia, Italia.

258. **D. Tetrastaga importata** Nits. Pyr. Germ. p. 415. — Stromate mox breviter effuso, mox ramulos ambiente, peritheciis coalescentibus subinde valseum æmulante, quoad immersum strato nigricante circumscripto, peridermio adhærente, haud decolorato, tecto; peritheciis perexiguis, e globoso plus minus depressis, corticis strato infimo immersis tandem sæpe ligno supposito basi applanata adnatis, ordine inæquali dispositis, sæpissime vero 2–6 valseo modo stipatis, tunc parum protuberantibus pustulasque minutas peridermio 2610

velatas, vertice denique perforatas vel fissas perficientibus; collis brevissimis, ostiolis abbreviatis, punctiformibus; ascis anguste oblongis v. subcylindricis, octosporis, 66–75 ≃ 9; sporidiis subdistichis v. oblique monostichis, fusiformibus, utrinque obtusis v. acutiusculis, bicellularibus, quadriguttulatis, medio septifero tandem parum constrictis, rectis vel inæquilateralibus, subhyalinis, 12–18 ≃ 4–5.

Hab. in ramulis emortuis Lycii barbari, Höxter Germaniæ (Beckhaus), King's Lynn Britanniæ (Plowright).

259. **D. Tetrastaga Putator** Nits. Pyr. Germ. p. 306, *Sph. mutila* 2611
Fr. S. M. II, p. 424 ex parte, *Valsa convergens* Fuck. F. rhen. n. 1565 (nec Fr.). — Stromate raro brevi, maculæformi, multo sæpius latissime effuso, ramos per longitudinem integros ambiente, omnino alteque immerso, strato extimo nigricante, peridermio haud decolorato, ostiolis erumpentibus cribrose perforato, arcte adhærente tecto; peritheciis parvulis, e globoso parum depressis, ordine subæquali denseque sparsis, immo sæpissime stromatis modo valsei aggregatis, tunc hic illic mutua pressione angulatis, cortici interiore insculptis, demum sub peridermio fere liberis, exsiccando haud raro collapsis; ostiolis perexiguis, omnino abbreviatis, peridermium haud superantibus; ascis anguste clavatis v. oblongis, octosporis, 38–50 ≃ 6–8: sporidiis subdistichis v. oblique monostichis, subcylindricis v. obtuse et anguste fusiformibus, bi-cellularibus, quadriguttatis, medio septifero haud constrictis, hyalinis, plerumque rectis, 12–15 ≃ 3.

Hab. in ramis emortuis Populi pyramidalis, P. nigræ et P. tremulæ in Germania et Britannia.

260. **D. Tetrastaga Spina** Fuck. Symb. myc. p. 210, t. IV, fig. 44. 2612
— Peritheciis sparsis gregariisve, semper tectis, cortice vix mutato immersis, media magnitudine, perfecte globosis, atris, rostro spiniformi, perithecii diametrum æquante, recto, prominulo, concolori; ascis oblongis ellipticisve, 8sporis, sessilibus, 35–40 ≃ 15–16, deorsum acutioribus, lumine apice bifoveolatis; sporidiis di-tristichis, fusiformibus, curvatis, subtilibus, hyalinis, constanter quadriguttulatis, 18–20 ≃ 2,5–4, utrinque obtusiusculis, denique 1-septatis, subconstrictis.

Hab. in ramis siccis Salicis auritæ, rarius, prope Œstrich Germaniæ, Selva Italiæ bor., North Wootton Britanniæ. — *Tetrastaga* nec *Euporthe!*

261. **D. Tetrastaga Humboldtiana** Speg. Fungi Arg. Pug. III, n. 52. 2613

— Peritheciis laxe gregariis, fere totum ramulum occupantibus, cortice immutato immersis ac eum pustulatum efficientibus, atris, membranaceis, contextu dense parenchymatico, ostiolo conico, atro, carbonaceo, non v. vix supra matricem exerto ornatis, $^1/_5$–$^1/_6$ mill. diam.; ascis fusiformi-clavatis, apice obtusiusculis, deorsum acutiuscule attenuatis, 50–60 ≃ 7–8, octosporis, aparaphysatis; sporidiis oblique distichis, elongato-ellipticis, utrinque acutiuscule rotundatis, medio 1-septato-constrictis, 4-guttulatis, hyalinis, 13–14 ≃ 4–5.

Hab. in ramulis dejectis Salicis Humboldtianæ in nemorosis prope la Recoleta, Argent. Amer. merid.

262. **D. Tetrastaga exasperans** Nits. Pyr. Germ. pag. 289. — Stro- 2614
-mate effuso, ramos tenues interdum ambiente, sæpius contra brevi, maculæformi, immo hic illic, peritheciis dense aggregatis, valseum æmulante, strato extimo tenuissimo, aterrimo undique limitato, cortice ostiolis nigro-punctato arcte adhærente tecto; peritheciis minutissimis, corticis interioris parenchymati totis immersis, nonnumquam parum protuberantibus, e globoso mox maxime depressis, in collum pertenue, brevissimum abrupte attenuatis, ordine subæquali sparsis vel 2–5 densius aggregatis; ostiolis in plerisque parum tantum elongatis, cylindricis vel subconicis, peridermium perforatum vix superantibus, multo rarius maxime elongantis, cylindricis, tenuissimis, sæpe fasciculatim erumpentibus, longe extantibus, flexuosis vel secundis; ascis clavatis vel oblongis, octosporis, 56–68 ≃ 8–10; sporidiis subdistichis, bicellularibus, quadriguttatis, fusiformibus vel subcylindricis, utrinque obtusissimis, rectis vel rarius parum curvatis, medio tandem constrictis, hyalinis, 14–16 ≃ 4–5.

Hab. in ramis emortuis Betulæ albæ prope Münster et Œstrich Germaniæ.

263. **D. Tetrastaga macrostoma** Nits. Pyr. Germ. p. 284. — Stro- 2615
mate latissime effuso, ramos ipsos crassiores sæpe ambiente, cortici lignoque supposito specie haud mutato toto innato, nigrolimitato, peridermio ostiolis erumpentibus lacerato, passim desquamato, ceterum non decolorato tecto, peritheciis ordine vario sparsis, sæpe 10–20 dense aggregatis, subglobosis vel depressis in corticis substantia infima nidulantibus; ostiolis plerumque valde elongatis, crassiusculis cylindricis vel basim versus parum sensimque incrassatis, hic illic nodulosis, rugulosis, sæpe decumbentibus varieque flexuosis; ascis clavatis vel anguste oblongis, octosporis; sporidiis subdistichis, fusiformibus, utrinque obtusiusculis, bicellularibus, qua-

driguttatis, medio tandem constrictis, hyalinis, rectis, 20 ≃ 5. — Spermogonia phomatoidea: spermatiis fusoideis 8–9 ≃ 3; basidiis hamatis 32–36 ≃ 1.

Hab. in ramis siccis Fagi sylvaticæ in Germania (Fuck., Nits.) et Italia boreali (Spegazzini).

264. **D. Tetrastaga scabra** Nits. Pyr. Germ. p. 310. — Stromate 2616
effuso, magnitudine vario, raro ramos ambiente, multo sæpius contra breviori, immo brevissimo, tunc in ramorum epidermide lævi plagas sistente parum elevatas, varie circumscriptas, peridermio adhærente sed ostiolis cribrose perforato tecta ideoque in superficie scabrosas, intus strato nigricante varieque flexuoso circumscripto; peritheciis minutis, globosis, plerumque parum depressis vel basi tantum deplanatis, ordine fere æquali ac dense sparsis, in corticis interioris parenchymate nidulantibus, in collum brevissimum angustatis; ostiolis exiguis, ex peridermii foraminulis omnino non v. parum tantum prominentibus; ascis anguste clavatis v. subcylindricis, octosporis, 60 ≃ 9–10; sporidiis distichis v. oblique monostichis, fusiformibus, utrinque acutiusculis, rectis, subhyalinis, bi-cellularibus, quadriguttulatis, medio septifero haud constrictis, 10–12 ≃ 3.

Hab. ad ramos Platani acerifoliæ prope Cappenberg et Münster Germaniæ.

265. **D. Tetrastaga? medusina** (Fr.) Sacc., *Sphæria medusina* Fr. 261
Elench. II, p. 75. — Peritheciis minimis parcis latentibus, stromate fuligineo-nigro inter epidermidem et corticem latissime effuso, ostiolis copiosis fasciculato-erumpentibus divergentibus flaccidis.

Hab. ad cortices Platanorum in Gallia (Guepin, Mougeot). Perithecia admodum parca, minuta, globosa, atra, profunde in cortice interiori immersa, dispersa, ut singulus ostiolorum fasciculus unico tantum perithecio niti videatur. Ostiola numerosissima, in tuberculis erumpentibus collecta, sed valde tenuia, crinalia, divergentia, flaccida, fusca. Inter hæc ostiola supra epidermidem exserta et perithecia profunde in cortice interiori latentia vel inter epidermidem et corticem superiorem adest stroma latissime effusum, ambiens, pulveraceum, habitu seriaceo, fuliginoso-atrum, in quo infra singulum ostiolorum fasciculum maculæ albæ, cum disco *Melanconii bicoloris* analogæ, ipsumque stroma *Melanconio* persimile est. «Fructificatio mihi ignota».

266. **D. Tetrastaga Æsculi** Cooke et Harkn. Grevill. IX, 1881, p. 86. 2618
— Corticola, in plagas elongatas collecta; peritheciis globoso-de-

pressis; ascis lanceolatis, sessilibus; sporidiis sublanceolatis rectis quadrinucleatis 18 ≃ 3,5.

Hab. in ramis Æsculi californicæ in California Americæ borealis.

267. **D. Tetrastaga Coneglanensis** Sacc. et Speg. Mich. I, p. 29. — 2619
Peritheciis sparsis, cortici immutato immersis lineaque nigra maxime tortuosa per lignum excurrente limitatis, globosis, brevissime papillatis, nigris; ascis fusoideis 50–65 ≃ 6–8, aparaphysatis, octosporis; sporidiis distichis breve fusoideis utrinque obtusiusculis, 14–16 ≃ 3–4, constricto-1-septatis, 4-guttulatis, hyalinis.

Hab. in ramis Æsculi Hippocastani, rarius, Conegliano, Italia borealis.

268. **D. Tetrastaga minuta** Nits. Pyr. Germ. p. 307. — Stromate 2620
longe lateque effuso, ramos in longitudinem integros occupante, quoad immersum strato nigricante cincto, peridermio haud decolorato, plerumque arcte adhærente vestito; peritheciis minutissimis e globoso mox depressis, basi applanatis, corticis parenchymate exceptis vel ligno supposito affixis, ordine subæquali ac satis dense sparsis, collo brevissimo ostioloque perexiguo, abbreviato, punctiformi, peridermium perforante instructis; ascis clavatis v. oblongis octosporis, 45 ≃ 6–8; sporidiis anguste fusiformibus, utrinque obtusiusculis, subcylindricis, hyalinis, rectis v, inæquilateralibus, bicellularibus, bi-quadriguttatis, medio septifero haud constrictis, 11–12 ≃ 3.

Hab. in ramis tenuioribus Carpini Betuli prope Cappenberg Germaniæ.

269. **D. Tetrastaga carpinicola** Fuck. Symb. myc. App. II, p. 37. 2021
— Stromate in cortice interiore effuso e corticis substantia immutata formato, absque linea nigra limitata; spermogoniis tuberculæformibus, sub corticis epidermide nidulantibus, sparsis, siccis, unilocularibus, nigris demum vertice perforatis et spermatia ut massam candidam pulveraceam expellentibus; spermatiis lato-fusiformibus, uniseptatis, 2-3guttulatis, rectis, hyalinis, 10–12 ≃ 5; peritheciis ascigeris in cortice interiori nidulantibus, numerosis, nigris, pro ratione minutis, procumbentibus, globosis, ostiolis 2–3, minutissimis, papillæformibus, in corticis rimis transversalibus minutis vix prominulis, atris; ascis oblongis, sessilibus, 8sporis, 80 ≃ 8–10; sporidiis distichis, fusiformibus, subinæquilateralibus, utrinque acutis, primo 4guttulatis, demum uniseptatis, ad septum parum constrictis, 16 ≃ 4–5, hyalinis.

Hab. in ramulis siccis, adhuc stantibus Carpini Betuli prope Œstrich Germaniæ. — Cl. Rehm ad hanc speciem ducit dubitanter meam *D. decipientem* (quæ *D. nigroannulata* Kunze!); sed res iterum inquiri meretur.

270. **D. Tetrastaga castaneti** Nits. Pyr. Germ. p. 320, Sacc. Mich. I. p. 249. — Stromate plus minus late effuso, mox ramos ramulosque longe ambiente, mox contra multo breviore, areas minutas tantum occupante sed plerumque dense approximatas, cortici ac ligno omnino inculpato eorumque substantiam lineis atris marmorante, peridermio adhærente, peritheciorum ostiolis cribrose perforato tecto; peritheciis parvulis, subglobosis v. depressis, mox ordine subæquali ordinatis, mox 2–5 in modum valseum dense stipatis, in cortice interiore nidulantibus, rarius altius infossis, tunc basi tantum v. omnino ligno infossis, in collum breve v. brevissimum attenuatis; ostiolis erumpentibus plus minus exsertis obtusiusculis; ascis fusoideis, aparaphysatis, 70–80 ≃ 10, 8sporis; sporidiis, distichis, fusoideis, constrictis, tenuiter 1-septatis, 15–18 ≃ 4–5, utrinque obtuse attenuatis, rectis v. curvulis, 4-guttulatis, hyalinis. 2622

Hab in ramulis emortuis Castaneæ vescæ in Germania et Italia boreali.

271. **D. Tetrastaga pithya** Sacc. Fungi Ven. Ser. IV. p. 7. — Stromate ramulos hinc inde breviter ambiente lineaque nigra tortuosa per corticem lignumque non mutatum excurrente limitato; petheciis discretis in cortice immutato nidulantibus, sphæroideis, $^1/_4$–$^1/_3$ mill. diam., intus fuscidulis, ostiolo brevi epidermidem vix superante, crassiusculo, rotundato; ascis oblongo-fusoideis, 50–55 ≃ 6–7 8sporis; sporidiis plerumque distichis, raro oblique monostichis, fusoideis, hyalinis, 10–12 ≃ $3^1/_2$–4, 4-guttulatis, non v. vix medio constrictis. 2623

Hab. in ramulis putrescentibus Abietis excelsæ, Selva pr. Treviso Ital. bor. — Ramuli immutati manent, neque fungillus detegitur nisi ramus findatur. *Diaporthi oligocarpæ* et *D. minutæ* affinis videtur.

272. **D. Tetrastaga quadrinucleata** (Curr.) Sacc. *Sphœria quadrinucleata* Curr. Linn. Trans. XXII, p. 325, t. 58, f. 90. — Petheciis minutis, subglobosis; ostiolis mammillatis, peridermium perforantibus; sporidiis biseriatis, stipatis, anguste oblongis utrinque acutiusculis v. obtusiusculis, 4-nucleatis, hyalinis, 15 μ. long. 2624

Hab. in ramis corticatis, Weybridge Britanniæ.

B) Herbicolæ.

(Ad sect. Euporthem nutant).

273. **D. Tetrastaga mazzantioides** Sacc. et Sp. Mich. I, p. 385. — 2625
Stromate cauli corticato plagulas minutas nigricantes hinc inde afficiente sed vix penetrante; peritheciis in quaque plagula paucis, subcutaneis, prominentibus, globosis $^1/_3$ mill. diam. papillatis; ascis fusoideo-clavatis, basi acutioribus, 50–60 ≃ 7–8, lumine apice 2-foveolato, aparaphysatis, octosporis; sporidiis distichis, fusoideis, utrinque obtusiusculis, 10–12 ≃ 3–$3^1/_2$, sæpius curvulis, 4-guttulatis, spurie 1-septatis, non v. vix constrictis, hyalinis.

Hab. in caule Galii sylvatici, Conegliano, Ital. bor. — Habitu *Mazzantiam Galii* (Guep.) Mont. æmulatur, sed pluribus notis diversa.

274. **D. Tetrastaga maculosa** Sacc. et Sp. Mich. I, p. 383. — Stro- 2626
mate hinc inde caules corticatos breviter ambiente, hisque plagulas minutas versiformes, nigras afficiente; peritheciis corticolis globoso-depressis, $^1/_3$–$^1/_4$ mill. diam., linea nigra stromatica circumdatis; ostiolis breve rostellatis; ascis crasse fusoideis, 40–45 ≃ 10–12, apice obtusiore, lumineque 2-foveolato, aparaphysatis, 8sporis; sporidiis 2–3-stichis, oblongo-fusoideis, rectis, 10–11 ≃ 3–4, 4-guttulatis, spurie 1-septatis, non constrictis, hyalinis.

Hab. in caulibus emortuis Rumicis obtusifolii, Conegliano, Ital bor. — Stromate crebre et parvi-maculoso species facile dignoscenda.

275. **D. Tetrastaga Epilobii** Cooke F. brit. n. 686 et Plow. Sph. brit. 2627
n. 42 nec Fuck. quæ *Didymella tosta* (Cfr. Additamenta). — Stromate hinc inde plagulas atras subcrustaceas oblongas minutas in caule corticato efficiente; peritheciis plagulæ innatis paucis, lignoque adnatis v. semiinfossis, globoso-depressis, ostiolo minutissimo vix erumpente; ascis fusoideis, sessilibus, octosporis, aparaphysatis; sporidiis distichis fusoideis, utrinque obtusiusculis, 8–10 ≃ 2,5–3, 4-guttatis, dein 1-septatis, hyalinis.

Hab. in caule Epilobiorum emortuo, Dinmore, Hereford Britanniæ.

276. **D. Tetrastaga striæformis** (Fr.) Nits. in Fuck. Symb. myc. p. 2628
206, *Sphæria striæformis* Fr. S. M. II, p. 428. *Dothidea striæformis* Fr. Summa Veg. Scand. p. 386. — Epidermide atrata tecta, innata, demum medio rumpens, lanceolata, brevis, acuta, peritheciis seriatis albofarctis astomis; ascis oblongis, 8sporis, 50 ≃

6; sporidiis distichis, oblongis, 1-septatis, 4-guttulatis, 12 ≃ 3, hyalinis.

Hab. in caulibus Epilobii angustifolii (et Dipsaci?) in Germania, Suecia, Lusitania. — Leptostroma refert, sed adsunt perithecia cellulæformia, serie simplici v. duplici disposita. Striæ confertæ, lanceolatæ ½-2 lin. longæ, utrinque acutæ, parallelæ, atræ, opacæ, epidermide obtectæ, sed rima longitudinali rumpentes, sæpius in macula dealbata. *S. striæformis* Auct. species plures complectitur. Persoon (Syn. pag. 32) suam ad caules *Pastinaceæ?* legit, forsan nostram, sed nuperius ad *Xylomata* retulit (Ic. pict. t. 17, f. 3, a).

277. **D. Tetrastaga Racemula** (C. et P.) Sacc., *Sphæria* (caulicolæ) *Racemula* C. et P. 29 Rep. on the St. Mus. — Peritheciis cæspitosis, rugosis, minutis, depressis, nigris, denique collabentibus; ostiolis elongatis epidermidem perforantibus, ascis clavatis, sessilibus; sporidiis anguste lancolatis, hyalinis, 4-nucleatis, 14 μ. long. 2629

Hab. in caulibus Epilobii angustifolii, Adirondak Amer. bor. — Perithecia cuticulæ secedenti adhærent. An potius *Gnomoniella?*

278. **D. Tetrastaga oblita** Sacc. et Speg. Mich. I, p. 386. — Stromate ramos corticatos varie ambiente et nonnumquam infuscante, linea stromatica infra vix limitato; peritheciis corticolis, basi vero ligno infossis, globulosis, ¼ mill. diam., ostiolis breve rostellatis, parum excedentibus; ascis fusoideis deorsum acutioribus, 45-50 ≃ 8, aparaphysatis, octosporis; sporidiis fusoideis, utrinque obtusiusculis 12-14 ≃ 4-5, rectis, 1-septatis, leniter constrictis, 4-guttulatis, hyalinis. 2630

Hab. in ramis corticatis Artemisiæ camphoratæ, Colfosco, Ital. bor., rarius.

279. **D. Tetrastaga Valerianæ** Fuck. Symb. myc. App. I, p. 319. — Stromatibus linearibus, 1-2 lin. long ½ lin. lat., intus nigro-limitatis, in caulium cortice nidulantibus, atris; peritheciis stromati immersis, sparsis, parum protuberantibus, depresso-globosis, nigris, ostiolo brevissimo, punctiformi, prominulo; ascis oblongis, 8sporis; sporidiis distichis, fusiformibus, subrectis, 1-(3?)-septatis, 4guttulatis, hyalinis, 12 ≃ 3½. 2631

Hab. in caulibus emortuis Valerianæ officinalis prope Œstrich, Germaniæ et prope Treviso Ital. bor.

280. **D. Tetrastaga Desmodii** (Peck) Sacc., *Sph. Desmodii* Peck 26 Rep. p. 87. — Peritheciis sparsis vel seriatim digestis, minutis, 2632

epidermide ostiolo acuto vel conico pertusa velatis, nigris; ascis clavatis; sporidiis distichis, fusoideis, hyalinis, 4-nucleatis, 9-10 μ. longis.

Hab. in caule emortuo Desmodii, Garrisons Amer. bor.

281. **D. Tetrastaga desmodiana** C. et E. Grevill. VI, p. 93. — Gregaria, tecta; peritheciis semi-immersis; ostiolis erumpentibus, obtusis, atris; ascis clavatis; sporidiis lanceolatis, quadrinucleatis, hyalinis, 18 μ. longis. 2633

Hab. in caulibus Desmodii New Jersey Amer. bor.

282. **D. Tetrastaga sarmenticia** Sacc. Mich. I, p. 386. — Stromate caules late ambiente, at superficie vix manifesto, intra lignum vero zona nigra tortuosa excurrente circumscripto; peritheciis gregariis, globosis, $^1/_3$ mill. diam., in cortice nidulantibus vel basi ligno insculptis, ostiolis epidermidem nonnihil excedentibus; ascis oblongo-fusoideis 45 ≃ 7-8, utrinque obtusiusculis, aparaphysatis, octosporis; sporidiis inordinate distichis, oblongis, 10 ≃ 4-5, constricto-1-septatis utrinque subacutis, 4-guttulatis, hyalinis, strato mucoso initio obvolutis. 2634

Hab. in sarmentis emortuis Humuli Lupuli, Selva, prope Treviso Ital. bor.

283. **D. Tetrastaga Phaseolorum** B. et E. Grev. VI, p. 93, t. 100, f. 39. — Gregaria, tecta; peritheciis globosis, immersis, minimis; ostiolis spinæformibus, atris, erumpentibus; ascis clavatis; sporidiis lanceolatis, quadrinucleatis, 16 μ. longis. 2635

Hab. in caulibus Phaseolorum, New Jersey Amer. bor. — Tenuior quam *D. euspina.*

284. **D. Tetrastaga Baccharidis** Cooke in Grev. VII, p. 53. — Sparsa, punctiformis, cuticula tecta, ostiolis brevibus, erumpentibus; ascis clavatis; sporidiis fusiformibus, quadrinucleatis 18 ≃ 2-3. 2636

Hab. in caule Baccharidis, Darien Georgia America bor. (Ravenel).

285. **D. Tetrastaga austro-americana** Speg. Fungi Arg. I, p. 181. — Stromate late et continuo ramos ambiente, intime penetrante, linea nigra atque cortice infuscato limitato; peritheciis confertis, globosis, basi ligno insculptis, epidermide tectis, $^1/_4$-$^1/_5$ mill. diam., extus cinerascentibus, ostiolo acuto, atro-carbonaceo, robusto conico, corticem perforante, atque exertiusculo ornatis; ascis fusoideis, octosporis, 65 ≃ 10, aparaphysatis; sporidiis distichis, medio 1-septatis, non constrictis, 4-magni-guttulatis, 14-15 ≃ 6, hyalinis. 2637

Hab. in caulibus dejectis Jussiææ longifoliæ, a la Recoleta Argent. Amer. meridionalis.

286. **D. Tetrastaga aggerum** Sacc. et Speg. Mich. I, p. 387. — Stromate ramulos corticatos hinc inde ambiente et superficie nigrificante; peritheciis gregariis globulosis, $^1/_3$ mill. diam., cortice nidulantibus, ostiolo breve papillato, epidermidem parum excedente; ascis fusoideis, utrinque obtusiusculis, 50–60 ≃ 7, aparaphysatis, octosporis; sporidiis distichis fusoideis, sæpe curvulis, medio constricto-septatis, 14–16 ≃ 3–4, 4-guttulatis hyalinis. 2638

Hab. in caulibus Loti corniculati, Conegliano, Ital. bor.

287. **D. Tetrastaga pardalota** (Mont.) Fuck. Symb. myc. p. 206, *Sph. pardalota* Mont. Syll. Crypt. n. 839 et Notice etc., in Ann., 2, I, p. 304, t. 12, f. 1. — Maculæformis, epidermide cinerascente tecta, lineola flexuosa limitata; peritheciis sparsis hemisphærico-compressulis nigris intus cinereis astomis, stromate concolori immersis, tandem rimose erumpentibus; ascis fusoideo-clavatis 60–65 ≃ 7–9, octosporis; sporidiis subdistichis fusoideis, acutis, 12–14 ≃ 2–3, 4-guttulatis, dein 1-septatis non vel vix constrictis, hyalinis. 2639

Hab. in caulibus emortuis Convallariæ multifloræ in Gallia, Britannia et Germania.

288. **D. Tetrastaga Asparagi** Fuck. Symb. myc. p. 206. — Peritheciis in stromatibus elongatis, majusculis, nigris immersis, ostiolis prominulis; ascis elongatis, 88 μ. longis, 8sporis; sporidiis subdistichis, elongatis, curvatis, 1-(3?)-septatis, loculo superiori crassiori, acuminato, 24 ≃ 6, hyalinis. — Peritheciis spermogonicis in stromate tenuissimo, elongato, determinato sparsis, globosis, in ostiolum conicum attenuatis; cirrhis albis; spermatiis ovatis, biguttulatis, hyalinis. 2640

Hab. in caulibus siccis Asparagi officinalis prope Hattenheim Germaniæ. — Cl. Fuckel adscribit sporidia 4-septata, an ex errore?

289. **D. Tetrastaga exercitalis** (Peck) Sacc., *Sphæria* (caulicolæ) *exercitalis* Peck 40 Rep. on the St. Mus. New York. — Peritheciis minutis, confertis, in lineas longas digestis, initio epidermide velatis dein ea rimose fissa cinctis; ostiolis prominulis, subcylindricis; sporidiis oblongis vel subfusoideis, 1-nucleatis, 12–14 μ. longis, hyalinis. 2641

Hab. in caulibus herbarum in montibus Catskill Amer. bor. — Series militum armatorum in mentem revocat.

290. **D. Tetrastaga vacillans** (De Not.) Sacc., *Sphæria vacillans* De Not. Sfer. ital. p. 66, t. 68. — In series longissimas secus caulium strias ut plurimum ordinata; peritheciis plerumque discretis vel hic illic rarius conjugatis et invicem concrescentibus exiguis, punctiformibus, hemisphærico-rotundatis, parte inferiore tota insculptis, vertice cum ostiolo abbreviato, crassiusculo, mammillari emergentibus, saturate fuscis, superficie opacis, rugatis, pachypleuris, fragilibus, cellulis ægre conspicuis, grumosis, fuscis, contextis; nucleo madore albidulo, gelatiniformi haud diffluente; ascis numerosissimis, teretibus, obtusis, 82 ≃ 8, octosporis, paraphysibus vix ullis; sporidiis fusoideis, elongatis, hyalinis 4-nucleolatis, subtorulosis, subinde sublunulatis, 24-25 ≃ 5. 2642

Hab. in caulibus herbarum, prope Lago Maggiore Ital. bor.

Dubia.

291. **D. Euporthe? Kœlreuteriæ** (Dur.) Sacc. Mich. II, pag. 60. *Sph. Kœlreuteriæ* Dur. in Roum. F. Gall. n. 287. 2643

Hab. in ramis Kœlreuteriæ paniculatæ Bordeaux Galliæ. — Specimina visa non prorsus matura. Adest simul: *Phoma Kœlreuteriæ* Sacc. peritheciis punctiformibus, subtectis; spermatiis oblongo-cylindraceis, 4 ≃ 1-2, basidiis duplo longioribus suffultis. Quæ verisimiliter spermogonium sistit.

REPERTORIUM

SPHÆRIACEARUM HYALODIDYMARUM

SECUNDUM MATRICES

Obs. A. indicat *Apiospora*. — B. *Bertia*. — D. *Diaporthe*. — Di. *Didymella*. — E. *Epicymatia*. — En. *Endothia*. — Er. *Eriosphæria*. — G. *Gnomonia*. — Gi. *Gibbera*. — H. *Hercospora*. — L. *Lizonia*. — Le. *Lentomita*. — M. *Melanopsamma*. — Le. *Melanconis*. — My. *Myrmœcium*. — S. *Sphærella*. — St. *Stigmatea*. — V. *Venturia*.

Numeri 1819-1999 citantur 819-999; numeri vero 2001-2643 citantur 1-643.

Abies — S. 837. — Di. 136. — D. 400. 493. 623.
Acacia — S. 917.
Acanthus — D. 496.
Acer — S. 847. 848. 82. — Di. 131. — G. 204. 205. 206. 224. — M. 269. — Le. 286. — D. 359. 361. 362. 363. 365. 366. 367. 368. 416. 417. 460. 461. 589. 490. 591.
Achillea — D. 504.
Adonis — S. 934.
Ægopodium — St. 125.
Æsculus — S. 819. 820. — G. 206. — En. 342. — D. 369. 618. 619.
Agapanthus — S. 30.
Agrostis — S. 41. 45. 47.
Ailanthus — S. 828. — D. 408. 553. 554.
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Albizzia — D. 552.
Alchemilla — V. 314.
Allium — S. 22. 23.
Alnus — S. 913. 914. 915. — St. 108. — G. 204. 217. 218. — M. 248. 262. — En. 342. — Me. 348. 349. 350. — D. 360. 442. 588.
Alopecurus — S. 58.
Amelanchier — D. 404.
Ammophila — S. 59.
Androsace — S. 977.
Andromeda — S. 928. — St. 111. — Di. 148. — Er. 330.
Andropogon — A. 99.
Angelica — S. 9. — St. 124. — Di. 163. D. 494. 499.
Anthyllis — S. 944.
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Arctostaphylos — S. 892. 8. — V. 327.
Aristolochia — D. 526.
Armoracia — S. 89.
Arnica — S. 965.
Aronicum — S. 92.
Artemisia — S. 961. 90. — D. 503. 630.
Arundinaria — A. 98. — St. 113. — Di. 191. 192.
Arundo — A. 98. 102.
Aspidium — S. 65. 97.
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Asphodelus — D. 539.
Asplenium — S. 65. 67. 97.
Aster — D. 504.

Astragalus — S. 986. 991. — Di. 174.
Atropa — D. 531.
Aucuba — D. 446.
Avena — V. 318.

Baccharis — D. 636.
Ballota — S. 21.
Bambusa — A. 98. 99. 103. — M. 261.
Bardana — D. 506.
Bauhinia — D. 451.
Benzoin — D. 378.
Berberis — S. 911. — Di. 146. — D. 401.
Betula — S. 830. — G. 204. 219. — V. 289. — Me. 343. — D. 373. 374. 375. 614.
Brassica — S. 939. — D. 415. 518.
Braya — S. 962.
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Buxus — D. 598.
Bumelia — S. 904.

Caladium — S. 32.
Calamagrostis — S. 58. 95. — A. 100.
Calluna — Di. 134.
Calycanthus — S. 910.
Campanula — D. 519.
Cannabis — S. 18.
Capparis — D. 476.
Carex — S. 42. 55. 56. 58. 59. — Di. 181. — V. 319. 320.
Carduus — D. 512.
Carlina — S. 966. 967. — V. 325. — S. 993. — D. 507.
Carpinus — S. 819. 820. 860. — G. 205. 209. 211. 221. — En. 342. — D. 354. 355. 356. 357. 358. 445. 620. 621.
Carya — S. 819. 905. — D. 383. 409.
Cassandra — V. 300.
Cassinopsis — S. 922.
Cassiopeja — V. 301.
Castanea — S. 819. 820. 822. 859. 862. — Di. 142. — G. 204. — En. 342. Me. 344. — D. 418. 419. 440. 622.
Catalpa — D. 462. 599.
Celtis — S. 80. — Di. 144. — M. 255. — B. 275. — D. 479.
Centaurea — D. 512.
Cephalanthus — M. 271.
Cephalaria — V. 312.
Cerastium — S. 94. — D. 537.
Ceratonia — S. 900.
Cercis — S. 913.
Chærophyllum — S. 8.
Chenopodium — D. 526. — D. 535.
Cherleria — S. 973.
Chimonanthus — D. 470.
Chionanthus — Di. 143.
Cichorium — S. 993. — D. 504.
Cirsium — Di. 177. — D. 506. 512.
Citrus — S. 857. 858. 927.
Cleidium — S. 920.
Clematis — S. 880. — Di. 159. — D. 515.
Codiæum — G. 207.
Coffea — S. 923. — M. 252.
Comarum — S. 957.
Convallaria — S. 26. 27. — D. 639.
Convolvulus — S. 978. 979.
Coriaria — St. 121.
Cornus — S. 819. 912. — Di. 132. 133. — V. 392. — D. 414. 473. 601.
Coronilla — S. 949. 77. — D. 474. 475.
Corylus — S. 72. 75. — G. 204. 209. — V. 322. — En. 342. — D. 353. 420. 421. 422. 423. 424. 452. 574. 575.
Cruciferæ — S. 992.
Cratægus — S. 852. 880. — Di. 135. — G. 204. — E. 243. — L. 282. — V. 288. 290. — D. 405. 486.
Cucurbita — Di. 154.
Cupressus — St. 110. — M. 267. — D. 493.
Cydonia — S. 844. — D. 135.
Cynanchum — S. 999. — D. 153.
Cytisus — S. 839. 913. 926. 929. — Di. 126. — D. 394. 436. 466. 543. 546.

Dactylis — S. 42. — A. 101. 103.
Dahlia — S. 995.
Daphne — S. 891. — D. 602.

Daucus — S. 5. — D. 499.
Dendromecon — S. 894.
Desmodium — St. 214. — D. 632. 633.
Deutzia — D. 608.
Dianthus — S. 970.
Dioscorea — Di. 190.
Diphyscium — V. 321.
Dipsacus — S. 5. — Di. 156. 178. — D. 531.
Dorycnium — D. 547. 548.
Draba — S. 938. 963. — Di. 168.
Dryas — S. 955. 956. — Di. 151. — G. 223. — M. 264.

Epilobium — S. 942. 943. 12. 19. — Di. 170. 171. 172. — G. 196. 197. — V. 309. — D. 627. 628. 629.
Epimedium — S. 933.
Epipactis — S. 26.
Equisetum — S. 69. — V. 326.
Erica — M. 250.
Erigeron — V. 313.
Eriophorum — S. 58.
Eryngium — S. 976. — Di 497. 498. — V. 307.
Erysimum — S. 992.
Erythrina — Di. 147. — M. 263.
Eucalyptus — S. 889. — Di. 140.
Eupatorium — D. 505.
Euphorbia — S. 1. — G. 199. — D. 517.
Euphrasia — Di. 179.
Eurybia — L. 246.
Eutypa — B. 280.
Evonymus — S. 906. — V. 296. — D. 609.

Facchinia — S. 973.
Fagus — S. 819. 850. 851. 85. 87. — Di. 135. — G. 221. — B. 272. 279. En. 342. — Me 347. — D. 399. 435. 615.
Ferula — E. 496.
Ferulago — D. 494.
Festuca — S. 973. 58.
Ficus — D. 594.
Fœniculum — D. 495. 496.
Forsythia — S. 879.
Fragaria — S. 951.
Fraxinus — S. 820. 883. — V. 290. — D. 395. 489. 583. 584. 585. 586.

Galeopsis — S. 935.
Galium — S. 12. — D. 625.
Gaultheria — S. 893.
Gentiana — S. 14.
Geum — S. 950. 958.
Graminaceæ — S. 36. — Di. 185. 186. — L. 245.
Gregoria — S. 977.
Grevillea — S. 921.
Gypsophila — S. 2000.

Hagenia — E. 239.
Hedera — S. 841. — D. 380. 459.
Helianthus — D. 504.
Helleborus — S. 931. 932. — Di. 160.
Hemerocallis — S. 29.
Heracleum — St. 124. — D. 494. 501.
Hesperis — D. 526.
Hibiscus — D. 595.
Holcus — A. 101.
Humulus — Sp. 975. — Di. 166. — D. 634.
Hypericum — S. 13. — Di. 155. — D. 522.

Iasminum — D. 471.
Ilex — V. 293. 323. — D. 389. 603.
Impatiens — S. 937.
Imperatoria — St. 124.
Iris — S. 31.
Iuglans — G. 220. — En. 342. — Me. 345. — D. 410. 411. 576. 577.
Iuncus — S. 49. 50. — Di. 184.
Iungermannia. — V. 321.
Iuniperus — M. 260. — B. 274. — D. 490.
Iurinea — S. 960.
Iussiæa — D. 637.

Kalmia — S. 897. — V. 324.

Kerria — D. 485.
Kœlreuteria — D. 643.

Lactuca — S. 994.
Lamium — D. 526.
Lampsana — D. 504.
Lappa — D. 510. 511. 512.
Laserpitium — St. 112. — D. 500.
Lathyrus — S. 986. — Di. 166. 167. G. 201.
Laurus — V. 294. — D. 478. 604.
Lecanora — E. 231. 238.
Lecidea — E. 232.
Lepidium — S. 992.
Leucanthemum — D. 502.
Leucopogon — L. 247.
Libanotis — S. 976.
Lichenaceæ — E. 236.
Ligustrum — S. 838. — D. 477.
Lilium — S. 24. 25.
Linnæa — G. 215. — V. 299.
Liriodendron — S. 908.
Lonicera — S. 895. 896. 84. — D. 472. — V. 295. 296.
Lotus — D. 638.
Lucuma — D. 458.
Luzula — S. 52. 58.
Lycium — D. 610.
Lycopodium — S. 68. — D. 542.
Lyonia — S. 819.

Magnolia — S. 918. 919. — D. 480.
Magydaris — D. 496.
Majanthemum — S. 27.
Mahonia — D. 406. 605.
Massaria — E. 242.
Medicago — S. 988. — D. 526. 529.
Melampyrum — S. 998. — D. 525.
Melastoma — S. 826.
Melia — D. 447. 554.
Melilotus — S. 986.
Mentha — D. 526.
Mercurialis — S. 88.
Mesembryanthemum — D. 521.
Metrosideros — D. 469.
Micromeria — S. 20.
Molinia — A. 103.
Morus — S. 83. — D. 448. 449.
Mulgedium — Di. 180.
Myrica — S. 849. — G. 202. — D. 439. 453. 555. 556.
Myricaria — S. 888. — Di. 145.
Myrsine — S. 887.

Nepeta. — Di. 175.
Nerium — S. 890. — Di. 149.
Nyssa — S. 78. — Di. 141. — D. 391.

Ochrolechia — E. 235.
Olea — D. 578.
Ononis — D. 526.
Onosma — Di. 165.
Orobus — S. 947. 948.
Oryza — S. 43. 44.
Ostrya — G. 208. 210.
Oxalis — S. 984. 985.

Pachyospora — E. 240.
Paliurus — D. 464.
Palmaceæ — Di. 189.
Papaver — S. 16. 17.
Pedicularis — S. 936.
Peltigera — E. 233.
Persea — S. 907.
Petasites — S. 93. — V. 408.
Peucedanum — S. 6.
Phacelia — D. 513.
Phalaris — S. 37. 96.
Phaseolus — S. 945. 946. — D. 635.
Philadelphus — D. 608.
Phillyrea — D. 579.
Phormium — Di. 187.
Phragmites — S. 59. — A. 99. 101.
Physcia — E. 234.
Phytolacca — S. 983. — D. 534.
Pinus — Di. 152. — V. 304. 305. 306. — Er. 328. — D. 491. 492.
Pistacia — St. 122.
Pisum — S. 989.
Pittosporum — S. 881.
Placodium — E. 231.
Plantago — S. 987. — D. 514.
Platanthera — S. 23.

Platanus — S. 820. 856. — D. 407. 616. 617.
Poa — S. 40. 58.
Polygonum — S. 981. 982. — St. 123.
Polypodium — S. 66. 97.
Polytrichum — L. 244. — V. 321.
Populus — S. 871. 872. 873. 874. 875. 875. 876. — M. 249. 259. — B. 272. — Me. 351. — D. 396. 468. 611.
Potentilla — V. 316. 317.
Poterium — S. 959.
Primula — S. 977. — V. 315.
Prinos — D. 455.
Prunella — D. 525.
Prunus — S. 844. 845. 899. — G. 214. V. 288. — D. 402. 403. 481. 488. 566. 567. 568. 570.
Psammisia — S. 884.
Psoroma — E. 241.
Pteris — S. 61. 62. 63. 64. 97. — Di. 193. 194. 195. — D. 541.
Pulsatilla — S. 930.
Punica — Di. 135.
Pyrus — S. 842. 843. 844. 845. 846. — Di. 135. — V. 288. — Er. 336. — D. 564. 565.

Quercus — S. 819. 821. 820. 823. 824. 825. 826. 827. 829. 924. — G. 204. 212. 213. 221. — M. 248. 259. 266. 268. — B. 272. 278. — Le. 285. — V. 288. 297. — En. 342. — D. 383. 384. 385. 386. 387. 426. 427. 456. 457. 571. 572. 573.

Ranunculus — St. 109.
Rhamnus — D. 397. 398. 425. 463.
Rhododendron — S. 822. — G. 200.
Rhus — D. 381. 382. 597.
Rhyncosia — St. 116.
Ribes — S. 863. 864. 865. — G. 229. — V. 298. — D. 376. 606. 607.
Robinia — S. 882. 883. — M. 254. — D. 370. 371. 372. 467.
Rosa — St. 119. — Di. 150. — D. 484. 563.
Rosmarinus — M. 256.
Rottlera — S. 79.
Rubia — S. 10. 11.
Rubus — S. 853. 854. 855. — St. 119. Di. 128. 129. 130. — G. 198. 225. M. 249. 257. 270. — V. 291. — D. 428. 429. 487. 557. 558. 559. 560. 561.
Rumex — S. 980. 982. — Di. 194. — Di. 516. 626.

Salicornia — S. 2. 3.
Salvia — D. 525.
Salix — S. 866. 867. 868, 869, 870. 74. — Di. 137. 138. — G. 226. — M. 248. — B. 272. — V. 288. 290. 293. — Er. 329. — Me. 348, — D. 413. 432. 433. 434. 437. 468. 612. 613.
Sambucus — Di. 154. — B. 275. — D. 450. 593.
Saponaria — S. 971. — D. 536.
Sarothamnus — D. 545. 546.
Sarracenia — S. 941.
Saussurea — S. 997.
Scabiosa — S. 940.
Scirpus — S. 53. 54. — Di. 188.
Scleranthus — S. 2000.
Scrophularia — Di. 173. — D. 526.
Secale — S. 46.
Sedum — D. 520.
Senecio — S. 962. 968. 91. — Di. 169. — D. 504.
Sequoja — St. 110.
Sesleria — G. 203.
Smilax — S. 28.
Solanum — Di. 166. — D. 526. 532. 533.
Solidago — D. 508. — S. 996.
Solorina — B. 276.
Sophora — D. 550.
Sorbus — S. 835, 898, 86. — Di. 135. B. 272. — V. 288. — Me. 346. — D. 392. 569.
Sorghum — S. 38. 39. — Di. 182.
Spiraea — S. 952. 953. — D. 482, 483. 562.
Staphylea — Di. 139. — D. 388.

Stellaria — S. 972. 974.
Stenactis — Di. 156.
Sutherlandia — St, 115.
Symphoricarpos — D. 596.
Symplocos — S. 877.
Syringa — D. 465. 580. 581. 582.

Tagetes — D. 509.
Tamus — D. 540.
Tanacetum — D. 512.
Taraxacum — S. 960.
Taxus — S. 836.
Thamnolia — E. 237.
Tilia — S. 820. 860. 862. — G. 222. — Le. 281. — H. 352. — D. 396. 600.
Tofieldia — S. 58.
Torilis — S. 7. — D. 494.
Tormentilla — S. 949.
Trifolium — S. 990. — Di. 164. G. 227
Triticum — S. 48. 58. — Di. 182.
Tussilago — S. 963. 964.
Typha — S. 58. 60. — Di. 183.

Ulex — D. 393, 544, 546.
Ulmus — S. 885. 75. — G. 230. M. 248. En. 342. — D. 430. 431. 442. 443. 444. 587.
Umbelliferæ — S. 7. 19. — Di. 162. 166. — G. 228.
Urtica — Di. 161. 166. — D. 526.

Vaccinium — S. 820. 901. 902. 903. 76. — St. 120. — V. 301. 302. 303. — Gi. 338. — D. 412.
Valeriana — S. 15. — D. 631.
Verbascum — D. 525.
Verbena — Di. 156. 157.
Verbesina — D. 504.
Viburnum — S. 831. 832. 833. 834. — D. 592.
Vicia — 986.
Vinca — S. 909. — D. 523.
Vitis — S. 925. 73. — B. 277. — Le. 284. — V. 307. — Er. 337. — D. 454.

Wisteria — S. 978. — D. 549.

Yucca — D. 538.

Zea — S. 33. 34.. 35

Sect. 5. **Phæodidymæ** Sacc.

(*Didymosporæ* Sacc. Consp. gener. Pyr. p. 9, ex parte).

Sporidia ovoidea v. oblonga v. fusoidea, 1-septata, fuliginea v. intense olivacea.

Clavis analytica generum.

A) Simplices.

a) Tectæ.

Didymosphæria. Perithecia minuta, membranacea. Sporidia strato hyalino carentia.

Massariella. Perithecia majuscula, subcoriacea. Sporidia strato hyalino obvoluta.

b) Superficiales v. basi insculptæ.

1. Perithecia erostrata.

Parodiella. Perithecia phyllogena, adnato-superficialia, subcoriacea.

Amphisphæria. Perithecia xylogena v. corticola, basi insculpta, emergentia, carbonacea.

Delitschia. Perithecia coprogena, innato-emergentia, submembranacea.

2. Perithecia rostrata.

Rhynchostoma. Perithecia innato-emergentia, carbonacea.

B) Cæspitosæ.

Otthia. Perithecia cæspitosa, erumpenti-superficialia carbonacea, vix papillata.

C) Compositæ, stromaticæ.

Melanconiella. Stroma subcoriaceum cortice immersum, valseum, conidiis *Melanconiorum* comitantibus. Asci aparaphysati.

Valsaria. Stroma subcoriaceum, erumpens v. immersum, valseum, diatrypeum v. eutypeum, atrum, *Melanconio* nullo. Perithecia globulosa. Asci aparaphysati.

Camarops. Stroma crustaceum, hypoxyleum, emergens; *Melanconio* nullo. Perithecia subtubulosa. Ostiola prominula hemisphærica, pertusa. Asci aparaphysati.

DIDYMOSPHÆRIA Fuck. Symb. myc. pag. 140 emend. (Etym. *didymos* h. e. Sphæria *didymospora*). — Perithecia epidermide nunc immutatâ nunc nigrificatâ velata, submembranacea, minute papillata. Asci paraphysati, 4-8-spori. Sporidia ovoideo-oblonga, 1-septata, fuliginea. — Spermogonia et pycnidia in plerisque nota. — Cum hoc genere p. p. convenit *Microthelia* Körb., lichenibus adscripta,

quæ a ceteris *Didymosphæriis* distingueretur, teste Niesslio, ob clypeum nigricantem circa ostiolum et cum *Massariopside* Niessl confluere; quæ postrema vero, observante Rehmio, apice ascorum jodo coerulescente insuper dignoscitur. Cl. Niessl distinguit quoque gen. *Phorcys*, tunica ascorum perforata. Sed notæ hæ cum in pluribus speciebus nondum plene observatæ sint, genus collectivum pro interim adhibere coactus fui.

I. *Eudidymosphæria:* peritheciis epidermide non nigricata tectis (v. saltem maculis nigricantibus non indicatis).

1. **Didymosphæria conoidea** Niessl Neue Kernp. p. 202, Sacc. F. it. t. 208. — Peritheciis sparsis, tectis, tandem liberis, majusculis, conoideis, basi applanatis, vertice interdum paulo depressis, ostiolo papillæformi vel subconico, atris, nitidis, coriaceis, duriusculis; ascis cylindraceis, stipite brevi, 8-sporis, 60–79 ≃ 5–7; sporidiis monostichis, obovatis medio septatis pauloque constrictis, pallide olivaceis, 6–9 ≃ 5; paraphysibus angustis, simplicibus. 2644

Hab. in caulibus siccis Salviæ, Origani, Urticæ, Solidaginis, Lythri in Italia, Germania, Gallia, sæpe socia *Leptosphæria Doliolo*, a qua extus non distinguenda.

2. **Didymosphæria Schröteri** Niessl Neue Kernpilze 199. — Peritheciis sparsis gregariis, peridermio immutato tectis, minutis, hemisphæricis, ostiolo conoideo, prominulo, coriaceis sed tenellis, basi fibrillosis, atris; ascis cylindraceo-clavatis; stipite brevi, octosporis 50–60 ≃ 8–9; sporidiis monostichis, ovoideo-vel oblongo-lanceotis medio septatis, valdeque constrictis, rectis curvatisve, dilute olivaceis 10–14 ≃ 4–5; paraphysibus ascos superantibus, subramulosis. 2645

Hab. in caulibus siccis Œnotheræ biennis pr. Rastatt Germaniæ (Doct. Schröter).

3. **Didymosphæria Winteri** Niessl Neue Kernp. p. 165. — Peritheciis nunc sparsis, nunc laxe gregaris, minutis, hemisphæricis, tandem depressis, peridermio haud decolorato tectis, ostiolo papillæformi perforantibus, coriaceo-membranaceis atris; ascis clavatis stipitatis 8sporis 60–80 ≃ 10–12; sporidiis distichis, rarissime monostichis, lanceolatis vel lanceolato-oblongis, obtusiusculis, medio vel supra medium septatis valdeque constrictis, rectis vel leniter curvatis, luteo virescentibus seu olivaceis 11–14 ≃ 4½–5; paraphysibus numerosis, angustis, ascos longe superantibus, simplicibus vel sparse ramosis. 2646

Hab. in caulibus emortuis Solani Dulcamaræ, Lysimachiæ vulgaris et Spirææ Aruncі in Moravia et Styria.

4. **Didymosphæria Parnassiæ** (Peck) Sacc. *Sphæria Parnassiæ* Peck 27 Rep. on the St. Mus. New York. — Peritheciis sparsis, convexis v. subhemisphæricis, prominulis, perforatis, nigris; ascis cylindraceis; sporidiis oblongis, angustis, uniseptatis. subconstrictis, subinde curvulis, 37–40 μ. long. 2–4-nucleatis, coloratis. 2647

Hab. in caulibus emortuis Parnassiæ carolinianæ, Albany in America boreali.

5. **Didymosphæria zerbina** (De Not.) Sacc. *Amphisphæria zerbina* De Not. Sf. ital. p. 70, t. 73. — Peritheciis sparsis, basi applanata insculptis initio epidermide velatis, dein liberis, hemisphæricis, papillatis, dein papilla amissa pertusis; ascis crasse clavatis, filiformi-paraphysatis, octosporis 80–90 ≃ 16–17; sporidiis oblongis, bilocularibus, septo constrictis, badio-fuligineis, utrinque appendiculo seu locello diaphano rotundato auctis, 20–22 ≃ 9–10. 2648

Hab. in caulibus exsiccatis herbarum pr. Genova Italiæ bor. — Ad suum *Byssothecium circinans* ducit hanc speciem cl. Fuckel, quod mihi absonum videtur.

6. **Didymosphæria diplodioides** (Crouan) Sacc. *Sphæria diplodioides* Crouan Finist. p. 26. — Peritheciis sphæricis, nigris, sparsis, 1 mill. diam., ostiolo obsoleto; ascis cylindraceis octosporis; sporidiis ovoideis, fuligineis, uniseptatis; paraphysibus filiformibus ascos subæquantibus. 2649

Hab. in caule emortuo Eupatorii, Finistère Galliæ.

7. **Didymosphæria maritima** (Crouan) Sacc. *Sph. maritima* Crouan Finist. p. 27. — Peritheciis subsphæricis, nigris, 1 mill. diam., ostiolo obsoleto; ascis cylindricis, octosporis; sporidiis ovoideis, fuligineis, 1-septatis, bi-nucleatis; paraphysibus filiformibus. 2650

Hab. in caulibus emortuis Obionis, Finistère Galliæ.

8. **Didymosphæria Vizeana** (Cooke) Sacc. *Sphæria Vizeana* Cooke Calif. Fungi in Grevill. VII, p. 12. — Caulicola, sparsa; peritheciis atris, prominulis; ascis clavatis; sporidiis biseriatis, subellipticis, uniseptatis, hyalino-luteolis, 30 ≃ 10, loculo superiore latiore. 2651

Hab. in caulibus Lathyri venosi in California Amer. bor.

9. **Didymosphæria adelphica** (Cooke) Sacc. *Sphæria* (caulicolæ) *adelphica* Cooke Grev. VII, pag. 42. — Peritheciis ...,....; sporidiis uniseptatis, fuligineis, 16 ≃ 6,5. 2652

Hab. in caulibus Phytolaccæ, New Jersey in America boreali et in Britannia.

10. **Didymosphæria Oxycedri** H. Fab. Sphær. Vaucl. p. 84, t. II, fig. 14. — Peritheciis sparsis, cortici exarido semi-immersis, globosis conoideis, atris poro pertusis, $^1/_2$-$^2/_3$ mill. diam.; ascis late clavatis, sessilibus, 8-sporis, 150-175 ≃ 30-40; sporidiis nunc inordinatis, nunc subdistichis, ovalibus, didymis, medio constrictis vel non, fuscis, luculis 1-magniguttatis, 30-35 ≃ 12-15. 2653

Hab. ad corticem ramorum exaridorum Juniperi Oxycedri, Vaucluse Galliæ.

11. **Didymosphæria bacchans** Pass. in Thüm. Pilze d. Weinst. p. 134, t. IV, f. 8. — Peritheciis cortice exteriore immersis, minutis, seriatis, subglobosis, ostiolo brevi, conico, atro, erumpentibus; ascis oblongo-clavatis, basi attenuatis, quadri-vel octosporis; sporidiis obliquis, uniserialibus, elliptico-navicularibus, uniseptatis, fuscis; perithecia majora stylosporea adsunt. 2654

Hab. in sarmentis aridis Vitis viniferæ, Parma Italiæ superioris (Passerini).

12. **Didymosphæria Rhamni** H. Fab. Sphér. Vaucl. pag. 83, fig. 13. — Peritheciis solitariis, sparsis, globosis, atris, sub epidermide in pustulam inflatâ nidulantibus, vertice poro perforato per epidermidem stellatim fissam erumpente, 0,5 mill. diam.; ascis nunc longissimis, cylindraceis, stipitatis, 200 ≃ 15, et tunc sporidiis monostichis, nunc sed rarius clavatis, 100 ≃ 20, et tunc sporidiis subdistichis; parte non sporifera, 25 μ. long.; sporidiis oblongo-ovatis, didymis, medio constrictulis, obscure fuligineis, 23-30 ≃ 9-12. 2655

Hab. ad ramos exaridos Rhamni infectorii, Vaucluse Galliæ.

13. **Didymosphæria Sellæ** (Bagnis) Sacc. *Amphisphæria Sellæ* Bagnis Micol. Rom. Cent. I, p. 17, t. I, fig. 6. — Peritheciis gregariis, epiphyllis, epidermide tectis, demum perforantibus, atris, pyriformibus, ascis cylindraceis, rectis apice subacutis, hyalinis 120 ≃ 10; sporidiis ovatis utrinque acuminatis bicellularibus ad septum constrictis, binucleatis, uniseriatis, 15 ≃ 4-5, fuligineis; paraphysibus elongatis tenuibus, hyalino-lutescentibus apice clavato-capitatis. 2656

Hab. in foliis aridis Ilicis paraguayensis, Roma in Horto botanico.

14. **Didymosphæria Empetri** (Fr.) Sacc. *Sphæria Empetri* Fr. S. M. II, 552. Grevill. V, p. 63. — Gregaria v. sparsa, innata, nigra, initio levis et nitida, dein depressa et rugosa, ostiolo papillato; ascis cylindraceis, 50 μ. long.; sporidiis tereti-oblongis, uniseptatis, pallide brunneis, 17 μ. longis. 2657

Hab. in foliis Empetri nigri in Britannia. — *Sphæria Empetri* Fuck. videtur *Leptosphæria.*

15. **Didymosphæria trivialis** (B. et Br.) Sacc. *Sphæria trivialis* B. et Br. Ann. N. H. n. 632, t. 10, f. 16. — Sparsa tecta; perithe- 2658
ciis depressis, minutis; ostiolis obsoletis; ascis crassis, clavatis, obtusis octosporis; sporidiis ellipticis, uniseptatis.

Hab. in ramis emortuis, Batheaston Britanniæ. — Cuticula supra perithecia fuscescit, sed re vera quia perithecia translucent.

16. **Didymosphæria Vitis** H. Fab. Sphér. Vaucl. p. 83. — Peritheciis 2659
confertis, initio epidermide tectis, dein semi-liberis, globosis, atris, in seriebus longitudinalibus inter corticis fibras nidulantibus, ostiolo inconspicuo, $^1/_5$ mill. diam.; ascis cylindraceis, stipitatis, 8-sporis, 125 ≃ 16; sporidiis monostichis, ovatis, atro-brunneis, didymis, ad septum non constrictis, 16-20 ≃ 10-12.

Hab. ad ramos emortuos Vitis viniferæ, Vaucluse Galliæ.

17. **Didymosphæria? Cerasorum** (Fr.) Sacc. *Sphæria* (obtectæ) *Ce-* 2660
rasorum Fr. in Curr. Simpl. Sphær. p. 323, n. 300, fig. 80. — Peritheciis obtectis, simplicibus.....; ascis anguste elongatis; sporidiis distichis oblongo-fusoideis, curvulis; constricto-1-septatis, obscure fuscis, utrinque obtusiusculis, 22-23 μ. longis.

Hab. in ramis Cerasorum..... ubi?

18. **Didymosphæria incarcerata** (Desm.) Sacc. *Sphæria* (subtecta) *in-* 2661
carcerata Desm. 13. Not. 1846, p. 73. — Peritheciis sparsis subapproximatis, minutis, $^1/_4$ mill. diam., nigris, epidermide tectis, globosis, astomis, intus albis, demum depressis; ascis amplis, subcylindricis 125 μ. longis; sporidiis 8, uniserialibus ellipsoideis 20 μ. longis, olivaceis, uniseptatis.

Hab. in ramis Spartii juncei exsiccatis in Gallia.

19. **Didymosphæria Genistæ** Fuck. Symb. myc. p. 141. — Peritheciis 2662
sparsis, punctiformibus, primo tectis, demum subliberis, deplanatis, ostiolo cylindraceo, minuto, papillato, atro; ascis oblongis, substipitatis, sporidia 8, disticha, oblonga, didyma, fusca includentibus.

Hab. in ramulis subvivis Genistæ pilosæ pr. Œstrich Rhenogoviæ.

20. **Didymosphæria celata** (Curr.) Sacc. *Sphæria celata* Curr. in 2663
Berk. Outl. p. 398, *Sphæria obtecta* Curr. Micr. Journ. VII, p. 233, t. XI, fig. 16, B. et Br. Ann. N. H. n. 979, t. 17, f. 32. — Peritheciis globosis, epidermide tectis, solitariis v. subaggregatis; ostiolo brevi, depressiusculo hiantibus; ascis clavatis; sporidiis

biseriatis, atro-fuligineis, oblongis, v. biconicis, constricto-1-septates, 30-35 μ. longis.

Hab. in ramis Ulmi in Britannia.

21. **Didymosphæria dochmia** (B. et Br.) Sacc. *Sphæria dochmia* B. et Br. Ann. N. H. n. 630, t. 10, f. 13, Cooke Handb. n. 2672. — Sparsa, tecta; peritheciis solitariis, ovoideis, obliquis, denique collabentibus, ostiolis brevissimis constrictis, vertice obtusis pertusis; ascis clavato-cylindraceis, obtusis; sporidiis distichis oblongis, leniter curvis, denique uniseptatis, hyalinis (?) dein coloratis (teste Cooke l. c.). 2664

Hab. in ramis emortuis Ulmi, Batheaston Britanniæ. — Perithecia peridermium pustulatim leniter sublevant. — An *Didymella*?

22. **Didymosphæria permutata** Sacc. *Didymosphæria diplospora* Sacc. Mich. IV. p. 374, F. it. t, 372, nec Cooke, nec Fuck, teste Rehm. — Peritheciis gregariis innato-erumpentibus, globulosis, exsquisite papillatis, minutis, nigris; ascis cylindraceis apice rotundatis, 100-110 ≃ 10-11, breviter stipitatis, octosporis; sporidiis oblique monostichis ovato-biconicis, utrinque acutiusculis, 1-septatis, non constrictis, 15-20 ≃ 8-10, olivaceo-fuligineis. 2665

Hab. in sarmentis emortuis Rubi fruticosi in sylva Montello, Ital. bor. — A *D. diplospora* differt sporidiis ovato-biconicis utrinque acutiusculis.

23. **Didymosphæria gregaria** Speg. Fungi Arg. Pug. IV, n. 159. — Peritheciis lenticulari-subglobosis, parvulis, 150-180 μ. diam., atris, carbonaceo-submembranaceis, epidermide velatis, dense gregariis, glaberrimis, ostiolo minuto non v. vix papillulato, non exerto ornatis; ascis cylindraceo-clavatis, sursum rotundatis, crasseque tunicatis, deorsum attenuato-stipitatis, 70 ≃ 10, octosporis, paraphysibus filiformibus obvallatis; sporidiis oblique monostichis, utrinque obtusiuscule rotundatis, medio septato-constrictis, 14-15 ≃ 5-5,5, primo hyalinis, 4-guttulatis, dein eguttulatis, diluteque fuligineis. 2666

Hab. in sarmentis putridis Rubi discoloris in dumetis prope el Bañado de San José de Flores Argent. Amer. merid. — Species cum *D. epidermidis* et *D. diplospora* non comparanda.

24. **Didymosphæria Rubi fruticosi** (Crouan) Sacc., *Sphæria Rubi fruticosi* Crouan Finist. p. 28. — Peritheciis conicis, nigris, 1 mill. diam., ostiolo papillato; ascis subcylindricis, octosporis; sporidiis distichis subfusoideis, 1-septatis, granulosis, olivaceo-lutescentibus, appendiculatis. 2667

Hab. in sarmentis putridis Rubi fruticosi, Finistère Galliæ.

25. **Didymosphæria Betulæ** (Niessl) Sacc., *Phorcys Betulæ* Niessl Not. 2668
Pyr. p. 41. — Peritheciis sparsis, innatis, peridermio turgido tectis, amplis, $^3/_4$ mill. diam., ellipsoideis, carbonaceis, atris, ostiolo minuto parum erumpente; ascis valde elongatis, tubulosis, membrana interna apice incrassata perforataque, stipite brevi 200–250 ≃ 20; sporidiis 8 oblique monostichis, oblongis vel cylindraceo-oblongis medio septatis constrictisque, rectis, utrinque obtuse rotundatis, atro-fuscis, subopacis 23–26 ≃ 8–9; paraphysibus crassis, guttulatis, simplicibus.

Hab. in ramis emortuis Betulæ albæ, Rastatt Germaniæ (Schröter). — Sec. Niessl l. c. genus *Phorcis* distinguitur: ascorum membrana interna apice incrassata perforataque; paraphysibus distinctis; sporidiis didymis, (hucusque) fuscis v. nigricantibus.

26. **Didymosphæria anaxæa** Sacc. Fungi Ven. Ser. II, p. 325, Fungi 2669
ital. t. 134. — Peritheciis remote gregariis, primo epidermide velatis, dein semierumpentibus, globoso-lenticularibus, 120 μ. diam., atris, ostiolo vix papillato anguste pertuso; contextu parenchymatico laxiusculo, fuligineo; ascis clavatis, apice rotundatis, longiuscule attenuato-stipitatis, quandoque ima basi nodulosis, 100 ≃ 10, paraphysibus filiformibus obvallatis, 8-sporis; sporidiis oblique monostichis v. distichis, oblongo-clavatis, curvulis, 25–27 ≃ 6, biloculariBus, loculo supero breviore crassiore rotundato, infero subpyramidato acutiusculo, ad septum leniter constrictis, minute pluriguttulatis, olivaceo-fuligineis (initio simplicibus, clavulatis, 4-guttulatis hyalinis).

Hab. in calamis Scirpi Holoschœni in alveo fluminis Piave (Anaxum), Covolo pr. Treviso, Ital. bor. — Ob formam peculiarem sporidiorum facile dignoscitur.

27. **Didymosphæria polysticta** (B. et C.) Sacc., *Sphæria polysticta* 2670
B. et C. North Amer. Fungi n. 945. — Ostiolo excepto, epidermide tecta; ascis linearibus; sporidiis oblongis uniseptatis, fuscis, 7,5 ≃ 3–3,5.

Hab. in caule Smilacis in Amer bor. (Beaumont). — Perithecia vix epidermidem sublevant, nec nisi ostiola nigra punctiformia conspiciuntur.

28. **Didymosphæria smaragdina** (Ces.) Sacc., *Sphæria smaragdina* 2671
Ces. in Rabh. F. E. 2659. — Peritheciis depresse globosis, epidermide tectis, demum vertice perforato erumpentibus, contextu celluloso; ascis grosse cylindraceis, interdum leviter arcuatis, pa-

raphysibus filiformibus ramosis intermixtis, 60 ≃ 14; sporidiis 1-serialibus, octonis, pulchre viridibus, oblongis, 1-septatis ad septum constrictis, quovis loculo in contiguitate septi 1-ocellato, 14 ≃ 4.

Hab. in foliis corruptis Phœnicis dactyliferæ in Horto Neapolitano (Cesati). — Esset eadem ac *Didymosphæria Nubecula* Pass., observante cl. Wintero; sed in hac sporidia multo breviora (nempe 9 μ. long.) describuntur.

29. **Didymosphæria trachodes** (Mont.) Sacc., *Sphæria trachodes* Mont. 2672
Syll. Crypt. n. 832 et Cent. II, n. 58, Ann., 2, XVI, p. 386. — Subtecta; peritheciis confertis confluentibusque hemisphæricis atris, opacis, intus albo-cinereis, ostiolo papillæformi acuto; sporidiis ex ovoideo oblongis, brunneis, specie bilocularibus, opacis, 20-30 ≃ 15.

Hab. ad folia Monocotyledonearum in sylvis, secus amnem Gabaret Guyanæ (Leprieur).

30. **Didymosphæria yuccogena** (Cooke) Sacc., *Sphæria yuccogena* 2673
Cooke Calif. Fungi in Grev. VII, p. 12. — Gregaria, tecta; peritheciis prominulis, atris; ascis cylindraceis; sporidiis uniseriatis, ellipticis, uniseptatis, constrictis, brunneis, 28 ≃ 10.

Hab. in caulibus Yuccæ in California Amer. bor.

31. **Didymosphæria palustris** (B. et Br.) Sacc., *Sphæria palustris* B. 2674
et Br. Ann. N. H. n. 654, t. 12, fig. 39. — Peritheciis sparsis, epidermide tectis, globosis, ostiolis minutis papillatis, denique poro rotundo hiantibus; ascis linearibus; sporidiis monostichis v. subdistichis, ellipsoideis, leniter curvulis, uniseptatis, fuligineis, utrinque hyalino-appendiculatis, loculis subinde conoideis.

Hab. in foliis emortuis Iridum, Caricum etc. in Britannia.

32. **Didymosphæria Peltigeræ** Fuck. Symb. myc. p. 140. — Perithe- 2675
ciis gregariis, in macula expallescenti, tectis, globoso-conicis, atris, ostiolo conico, prominulo, punctiformi; ascis cylindraceis, substipitatis, 64 ≃ 12, sporidia 8, monosticha, ovata, suboblonga, didyma, pallide fusca, 18 ≃ 7, includentibus.

Hab. in thallo vivente Peltigeræ caninæ in Rhenogovia (Fuck.) et in Franconia (Rehm).

33. **Didymosphæria infestans** Speg. F. Arg. Pug. IV, n. 160. — Pe- 2676
ritheciis densiuscule gregariis, innato-prominulis, subgloboso-emisphæricis, 180-200 μ. diam., atris, crassiuscule membranaceis, ostiolo non v. vix papillulato 25 μ. diam., pertusis, contextu dense parenchymatico, olivaceo, circa ostiolum subcarbonaceo; ascis cylindraceis obtuse rotundatis, crasseque tunicatis, deorsum breviuscule attenuato-stipitatis, 80-85 ≃ 6-6,5, octosporis, aparaphysatis; spo-

ridiis recte v. oblique monostichis, elliptico-subclavulatis v. obovatis, superne sæpius obtuse rotundatis, inferne attenuato-acutiusculis, 12–14 ≃ 5–6, medio 1-septato-constrictis, loculo infero minore, primo granuloso farctis, hyalinis, dein guttulatis, olivaceis.

Hab. in thallo v. apotheciis languentibus Theloschistidis flavicantis ad palos vetustos, Conchas Argent. Amer. merid. — Species prædistincta; an sporidia primitus strato mucoso exiguo induta?

II. *Microthelia* Körb., Niessl: peritheciis epidermide circa ostiolum nigrificata tectis.

34. **Didymosphæria epidermidis** (Fr.) Fuck. Symb. myc. p. 141 *Sphæria epidermidis* Fr. S. M. II, p. 499 ex parte, *Sphæriæ atomaria* Wallr. Crypt. n. 3731. *Sph. Araucariæ* Cooke Seem. Journ. IV, t. 45, f. 12. — Sparsa; peritheciis tectis vix prominentibus, lævibus, minimis, demum collabescentibus depressis, ostiolo minuto erumpentibus; ascis cylindraceis, 75–100 ≃ 7–8, paraphysibus ramulosis obvallatis, octosporis; sporidiis monostichis, rarius subdistichis, ellipsoideis, uniseptatis, dein constrictis, rectis curvulisve, 2-guttulatis, 8–11 ≃ 6, fuligineis. — Spermogonia et pycnidia nota teste Fuck. l. c. 2677

Hab. ad ramos corticatos subvivos Berberidis vulgaris, Salicis, Eucalypti, Sambuci in Suecia, Belgio, Britannia, Lusitania, Gallia, Italia, Amer. bor. — Adest forma ascis tetrasporis. Varietates sequentes, quas distinxi in F. Ven. Ser. II. p. 323, forte specifice distinguendæ sunt. Var. *Coryli Avellanæ:* ascis 85–90 ≃ 8; sporidiis 14–16 ≃ 7,5, fuligineis. Pr. Treviso Italia bor. — *Salicis babylonicæ:* ascis 110 ≃ 9; sporidiis 15–18 ≃ 8–9, olivaceo-badiis. Ibidem.

35. **Didymosphæria brunneola** Niessl Neue Kernp. p. 201. — Peritheciis sparsis vel laxe gregariis, sub epidermide pallescente nidulantibus, macula fusca vel atro-purpurea tectis, majusculis, depresso-hemisphæricis vertice umbilicatis, papillatis, atro-fuscis, coriaceis, duriusculis; ascis subcylindraceis stipite brevi, octosporis 60–90 ≃ 6–8; sporidiis monostichis, ovoideo-oblongis, medio septatis paulo que constrictis, olivaceis, 7–12 ≃ 4–6; paraphysibus numerosis, elegantissime ramosis, angustis. — Spermogonia punctiformia, sparsa, hemisphærica, atro-fusca, submembranacea; spermatiis angustissimis, cylindraceis, rectis 2–4 ≃ $^1/_5$ hyalinis. 2678

Hab. in caulibus siccis Verbasci, Artemisiæ, Hyperici,

Rubi, Galii, Salviæ, Menthæ, Origani, Epilobii, Lythri in Germania, Italia, Austria. — Var. *sarmentorum* Niessl l. c.: major; ascis elongatis 90–100 ≃ 7–8; sporidiis sæpe inæquilateralibus v. subcurvulis ex olivaceo fuscescentibus 10–16 ≃ 5–6. In sarmentis Humuli Lupuli in Germania et Austria. — Var. *limitata* Kunze F. Sel. n. 89: major; ascis 65–76 ≃ 6; sporidiis vix constrictis 10–12 ≃ 6. In caule Meliloti albæ, Eisleben Germaniæ. — Var. *Hyperici calycini;* ascis 90–100 ≃ 9–10; sporidiis 16–18 ≃ 7–7,5, 2-guttatis, fuligineis. In Ital. bor.

36. **Didymosphæria Meretrix** (Mont.) Sacc. *Sphæria Meretrix* Mont. 2679
N. Cell. Cent. VIII, p. 145. — Caulicola, sparsa aggregatave; peritheciis velatis subsphærico-depressis atro-fuscis nitidis, ostiolo mamillari minuto; ascis cylindraceo-subclavatis, octosporis, paraphysatis, 70–80 ≃ 10 paraphysibus dichotomis; sporidiis serie unica imbricatis ex ovoideo oblongis, tandem olivaceis, 12–18 μ. longis. — Spermogonia adsunt minora; spermatiis oblongis 3 μ. longis, hyalinis.

Hab. ad caules Meliloti leucanthæ, Montaud-lès-Miramas Galliæ (Castagne).

37. **Didymosphæria albescens** Niessl Neue Kernp. p. 202. — Peri- 2680
theciis sparsis sub peridermio pallescente nidulantibus, macula atro-purpurea tectis, majusculis, depresso-hemisphæricis, tandem vertice collapsis, papillatis, fusco-atris, coriaceis; ascis clavato-cylindraceis, stipite brevi octosporis 58–86 ≃ 7–8; sporidiis monostichis, hinc inde distichis, ovoideo-oblongis, medio septatis constrictisque 9–13 ≃ 5–6; paraphysibus angustis, ramulosis.

Hab. in ramis Loniceræ Xylostei et Myricariæ vulgaris in Germania et Austria. — Vix diversa a *D. brunneola.*

38. **Didymosphæria diplospora** (Cooke) Rehm, Hedw. 1879, pag. 167. 2681
Sphæria diplospora Cooke Seem. Journ. (1866) t. 45, f. 7. *D. Rubi* Fuck. Symb. myc. p. 141 (1869). — Peritheciis sparsis, sub epiepidermide nidulantibus, minutis, subglobosis, atris, ostiolis erumpentibus, minutis, obtusis, demum perforatis umbilicatisque, atris; ascis stipitatis, cylindraceis, 8sporis, 120 ≃ 10; sporidiis oblique monostichis, ovatis, didymis, medio perparum constrictis, loculis uniguttulatis, fuscis, 14 ≃ 8; paraphysibus simplicibus, multiguttulatis, filiformibus. Teste Fuck., pycnidium sistit *Diplodiam Rubi* Fr.

Hab. in sarmentis corticatis Rubi fruticosi, rarius in Britannia, Germania, Belgio et Gallia. — Præeunte cl. Rehm forte *D. epidermidis* varietas.

39. **Didymosphæria Loniceræ** Sacc. *Amphisphæria Loniceræ* Sacc. 2682
Myc. Ven. Spec. p. 114, t. XI, fig. 30–32. — Peritheciis sparsis sub cortice denique dejecto nidulantibus, e sphærico depressis, $^1/_4$ mill. diam., ostiolo non prominulo, atris; ascis cylindricis basi attenuatis, 188 ≃ 8, paraphysibus filiformibus obvallatis, 8sporis; sporidiis recte monostichis, ellipsoideis, constricto-didymis, utrinque acutiusculis, 12–14 ≃ $6^1/_2$, septo medio evidentissimo, fuligineis.

Hab. sub cortice dejecto trunci Loniceræ sempervirentis emortui, Selva, agri Tarvisini, Ital. bor.

40. **Didymosphæria Galiorum** Fuck. Symb. myc. p. 140 (nec *Sphæria Galiorum* Desm.). — Peritheciis subsparsis, epidermide leniter nigrificata tectis, globoso-depressis, ostiolo perforante minuto; ascis cylindraceis, substipitatis, 8sporis, 34–44 ≃ 10; sporidiis monostichis, ovatis, uniseptatis, 12–15 ≃ 7–8, fuscis. 2683

Hab. in caule Galii veri, G. Aparines, G. sylvatici, G. Molluginis in Germania, Gallia, Italia, Belgio. — *Sph. Galiorum* Desm. est *Leptosphæria Aparines* (Fuck.)

41. **Didymosphæria opulenta** (De Not.) Sacc. *Amphisphæria opulenta* 2684
De Not. *Sphæria opulenta* De Not. Micr. ital. Dec. I, pag. 64, fig. VII. — Peritheciis sphæroideo-conicis firmis, rugulosis, atrofuscis, immersis, cortice nigrescente initio tectis, ostiolo cylindraceo-conico, perithecium fere æquante, erumpente et eminente; ascis cylindraceo-clavatis, paraphysatis, 150 ≃ 20–23, octosporis; sporidiis distichis, didymo-constrictis, utrinque, v. uno polo obtuse attenuatis, badio-fuscis, 20–25 ≃ 10.

Hab. ad ramos dejectos Opuntiarum in Sardinia austr., Gallia merid. et in Cuba.

42. **Didymosphæria tenebrosa** (B. et Br.) Sacc. *Sphæria tenebrosa* 2685
B. et Br. An N. H. n. 649, t. 12, fig. 35. — Sparsa cuticulâ mycelio toruloideo obscuratâ tecta; peritheciis depressis; ascis crasse cylindraceo-clavatis, obtusis, deorsum attenuatis; sporidiis fuscis, uniseptatis, binucleatis, loculis subconicis.

Hab. in caulibus emortuis Arctii, superficie nigrificatis, King's Cliffe Britanniæ et Vernoniæ noveboracensis in Pensylvania Amer. bor. — Sporidiis majusculis mycelioque toruloideo mox dignoscenda species.

43. **Didymosphæria appendiculosa** Speg. Fung. Arg. pug. IV, n. 158. 2686
— Peritheciis immersis e globoso lenticularibus 250–300 μ. diam., sparsis, superne epidermidi nigrificata adnatis, glaberrimis, atris, membranaceo-subcarbonaceis, contextu indistincte parenchymatico;

ascis cylindraceis sursum subattenuatis, apice truncatis, deorsum breve attenuato-stipitatis 150–170 ≃ 10–12, octosporis, aparaphysatis; sporidiis recte v. oblique monostichis, primo hyalinis, fusoideis, sæpius inæquilateralibus utrinque truncatis 28–30 ≃ 6–7 (sine caudis) et appendiculis (supera vix minore) concoloribus conico-elongatis, acutis 5–8 ≃ 3–4 auctis, diu continuis, grosse 1- v. pluri-guttatis, dein medio 1-septatis, non constrictis, cauda superiore diffluente orbatis, postremo elongato-ellipsoideis, utrinque obtusiuscule rotundatis, ac muticis, 28–30 ≃ 10, inæquilateralibus v. curvulis, medio 1-septatis, non constrictis, granuloso-farctis, amoene ac intense roseo-fuligineis.

Hab. in foliis dejectis putrescentibus Eryngii pandanifolii in paludosis ultra el Riachuelo Argent. Amer. merid. — Species habitu, magnitudine et notis juvenilibus fructificationis cum *Anthostomella appendiculosa* (B. et Br.) Sacc. (cujus formam tantum sporidiis hyalinis donatam adhuc inveni) perfecte conveniens, sed sporidiis postremo distinctissime medio 1-septatis recedens; an cum citata identica et observatio præcl. Saccardoi speciminibus adhuc immaturis adscribenda? an lusus naturæ climatisque? an vere nova species? Speg. l. c.

44. **Didymosphæria Spartii** (Castag.) Fab. Sphér. Vaucl. p. 83. *Sphæria Spartii* Castag. Cat. pl. Mars. p. 169. — Peritheciis sparsis, globosis, punctiformibus, in cortice interiori nidulantibus, epidermide nigrificatâ tectis, vertice deplanatis et coronulâ albâ epidermidis fissæ cinctis, ostiolo inconspicuo; ascis cylindraceis, stipitatis, 8-sporis, 150 ≃ 12; sporidiis monostichis, ovato-oblongis, 1-septatis, medio constrictulis, atro-ardosiaceis, 24–30 ≃ 7–10. 2687

Hab. in ramulis delapsis Spartii juncei et Genistæ Scorpii. — An diversa a *D. incarcerata* (Desm.)?

45. **Didymosphæria Syringæ** H. Fab. Sphér. Vaucl. p. 84, f. 15. — Peritheciis sparsis, minutis, sub epidermide nigro-punctatâ nidulantibus, globosis, atris, vertice poro pertusis; ascis cylindraceis, breve stipitatis, 8-sporis, 90–120 ≃ 8; sporidiis oblique monostichis, didymis, medio subconstrictis, pallide fuscis, loculis 1-guttatis, 15 ≃ 5–6. 2688

Hab. ad ramos emortuos Syringæ vulgaris, Vaucluse Galliæ.

46. **Didymosphæria futilis** (B. et Br.) Rehm, Hedw. 1870, p. 167, *Sph. futilis* B. et Br. Ann. N. H. n. 638 t. 11, fig. 23. — Sparsa, epidermide nigricante tecta; peritheciis subglobosis; ascis linearibus; 2689

sporidiis monostichis, oblongo-ellipticis, uniseptatis, leniter constrictis, hyalinis (an tandem fuscescentibus?).

Hab. in ramis emortuis Rosæ, King's Cliffe Britanniæ. — An *Didymella?* Sed Cooke Handb. n. 2674 inter chromosporas citat.

47. **Didymosphæria nitidula** Sacc. Mich. I, p. 30 et 98, F. it. t. 132. 2690
— Peritheciis sparsis, e globoso depressis, $^3/_4$–1 mill. diam., cortice innatis et epidermide tumidula nigrificata nitidissima, medio perforata, velatis, ostiolo subimpresso pertuso; ascis cylindricis prælongis, 150 ≃ 10–12 p. sporif., breviter stipitatis apice tunica integra rotundatis, paraphysibus filiformibus guttulatis, octosporis; sporidiis oblique monostichis, oblongo-fusoideis, 25–26 ≃ 10, rectis curvulisve, utrinque acutiusculis, constricto-1-septatis, granulosis, olivaceo-fuligineis.

Hab. in ramulis corticatis Carpini Betuli in sylva Montello, Ital. bor. — Habitu perfecte cum *Clypeosphæria Notarisii* Fuck. et *Anthostomella nitidula* Sacc. convenit sed sporidia distincte constricto-bilocularia.

48. **Didymosphæria socialis** Sacc. Fungi Ven. Ser. II, p. 324. — Pe- 2691
ritheciis dense gregariis, cortice immersis et epidermide circa ostiolum tumidula atque denigrata tectis, globosis, $^1/_2$ mill. diam., nucleoque crassiusculo nigris, ostiolo breviter papillato, vix erumpente; ascis cylindraceis, 110–120 ≃ 6, apice rotundatis, basi vix attenuatis subsessilibus, pseudo-paraphysibus parcis guttulatis obvallatis, 8-sporis; sporidiis oblique monostichis, oblongo-ovoideis, interdum subinæquilateralibus, 15 ≃ 6, granulosis, 2-guttulatisque, tandem obscure 1-septatis non constrictis, pallide olivaceis.

Hab. in ramis emortuis Robiniæ Pseudacaciæ, Selva, Treviso, Ital. bor. Ex clar. Doct. G. Winter in litt. crescit idem fungillus etiam in Populo Tremula in Germania. — Peritheciis crassiusculis, sporidiorum forma et colore et in primis habitu peculiari a cæteris speciebus statim dignoscitur. — **D. nobilis* Sacc. Mich. I, p. 32 differt sporidiis longioribus, nempe 18–20 ≃ 5–6, medio distincte constrictis, 4-guttulatis v. 2-nucleatis, fuligineis. In ramis corticatis Lauri nobilis, Conegliano, Italia boreali (Spegazzini).

49. **Didymosphæria oblitescens** (B. et Br.) Sacc. *Sphæria oblitescens* 2992
B. et Br. Ann. N. H. n. 887, t. 11, fig. 32. Cooke Handb. n. 2675 nec Fuck. — Peritheciis epidermide velatis, depressis, majusculis, ostiolis obscuris; ascis cylindricis elongatis; sporidiis oblongo-el-

lipticis, utrinque obtusissimis, uniseptatis, leniter constrictis 12–13 μ. longis.

Hab. in ramulis emortuis Corni, Spye Park Britanniæ. Epidermis supra perithecia subinde decolorata. Paraphyses lineares, interdum sporidium unum alterumve gerentes. *Didymosphæria oblitescens* Fuck. aliena est et sub nomine *Dydimellæ vexatæ* jam descripsi.

50. **Didymosphæria acerina** Rehm Ascom. n. 237 (1874) et in Hedwigia 1879, p. 168. *Massariopsis subtecta* Niessl (1875) in Notizen p. 39. — Peritheciis in cortice suberoso nidulantibus globulosis, 1 mill. circ. diam., gregariis, ostiolis peridermium superficie leniter cinereo-nigrificatum punctulato-perforantibus, leniterque pustulatim elevantibus; ascis cylindraceis, crassis, 100–120 ≃ 8, apice incrassato jodoque cœrulescente; sporidiis monostichis, oblongis, uniseptatis, utrinque obtusis, non v. vix constrictis, binucleatis, fuscis, 14–17 ≃ 5–7,5; paraphysibus articulatis subramosis. 2693

Hab. in ramis Aceris campestris et Pruni spinosæ in Germania, Helvetia, Austria et Britannia. — Var. *Fraxini* Wint. herb. (vix diversa). In ramis Fraxini pr. Leipzig Germaniæ.

51. **Didymosphæria pulchella** Sacc. et Sp. Mich. I, p. 375. — Peritheciis globulosis, ultra $^1/_2$ mill. diam., papillatis, initio subcutaneis; ascis cylineraceis, 100–150 ≃ 10–13 apice obtusis, lumine truncato minuteque 1-foveolato, paraphysibus filiformibus obvallatis, octosporis; sporidiis monostichis v. partim distichis, oblongis, constricto-1-septatis, 20 ≃ 8, olivaceo-fuligineis. 2694

Hab. in ramulis sub cortice denigratis Aceris Negundinis, Conegliano, Ital. bor. — Ab affini *Did. acerina* certe distinguenda.

52. **Didymosphæria grumata** (Cooke) Rehm Ascom. n. 441. *Sphæria grumata* C. et Ellis N. Am. Fungi n. 185. — Peritheciis hinc inde gregariis epidermide tumidula et nigrificata tectis, globosis, $^1/_2$ mill. diam., obtuse papillatis, nigris; ascis clavatis, 120 ≃ 15, paraphysibus ramosis obvallatis, octosporis; sporidiis ovoideo-clavulatis 1-septatis, demum constrictis, 2–4-guttatis, diu hyalinis, demum (teste Rehm) dilute fuligineis, strato mucoso 3 μ. cr. obductis, 21 ≃ 8, monostichis v. subdistichis. 2695

Hab. in ramis adhuc vivis Andromedæ ligustrinæ, New Jersey Amer. bor.

53. **Didymosphæria Nubecula** Pass. Micr. ital. Diagn. n. 11. — Peritheciis gregariis, minutis, immersis tectis, nubeculas griseo-fuscas, subdisciformes efficientibus, vel sparsis; ascis cylindricis sub- 2696

curvulis basi breviter attenuatis 8sporis, 75–90 ≃ 10; sporidiis oblique uniserialibus elliptico-oblongis, castaneo-fuscis, loculis guttulatis, 9 ≃ $3^1/_2$; paraphysibus copiosis ascos excedentibus.

Hab. ad folia arida Phœnicis dactyliferæ, Bordighera in Liguria.

54. **Didymosphæria donacina** (Niessl) Sacc. *Microthelia donacina* Niessl in Thuem. Contr. Myc. Lusit. n. 536. Peritheciis gregariis, plerumque seriatim dispositis, majusculis, 0,5 mill. diam., depresso-globosis, coriaceis, duriusculis, atris, ostiolo papillæformi; ascis anguste clavatis, longe pedicellatis, octosporis, 90–100 ≃ 12–13, p. sp. 50–60, stip. 40–50 μ. long.; sporidiis di-tristichis, stipatis, oblongis, medio uniseptatis seu didymis, rectis, inæquilateralibus vel parum curvatis, fuscis, 12–15 ≃ 4; paraphysibus ramulosis. 2697

Hab. in Donacis culmis emortuis, Ribeira de Cozelhas pr. Coimbra, Lusitaniæ (Moller).

55. **Didymosphæria minuta** Niessl Neue Kernp. p. 200. — Peritheciis sparsis, macula fusca in peridermio pallescente tectis, minutis globosis, ostiolo papillæformi vel subconico, atro-fuscis, coriaceo-membranaceis; ascis clavato-cylindraceis stipite brevi, 8sporis, interdum 4sporis, 60–80 ≃ 6–7; sporidiis monostichis, oblongo-obovatis, medio septatis pauloque constrictis olivaceis vel fuscescentibus 10–11 ≃ 5–6; paraphysibus angustis, simplicibus vel raro laxe ramosis. — Spermogonia sparsa, minutissima, punctiformia, papillata; spermatiis cylindraceis angustissimis, rectis, hyalinis, 3 ≃ $^1/_3$ mill. 2698

Hab. in foliis putridiis Caricis paludosæ et calamis Junci effusi pr. Brünn et Graz Austriæ.

III. *Species lichenibus adscriptæ.*

56. **D. Microthelia Micula** Flot., Rehm Hedw. 1879, p. 162. 2699

Hab. in cortice vetusto Tiliæ in tota Europa.

57. **D. Microthelia Wallrothii** (Hepp.) Rehm Hedw. 1879, p. 163. 2700

Hab. in cortice Betulæ in Germania, Italia etc. — An affinis *D. Phorcidi Betulæ* Niessl?

58. **D. Microthelia atomaria** Körb. Rehm Hedw. 1879, p. 164. 2701

Hab. in cortice subvivo Cratægi in tota Europa. — Peraffinis *D. epidermidis.*

59. **D. Microthelia analeptoides** Bagl. Rehm Hedw. 1879, p. 164. 2702

Hab. in cortice subvivo Daphnes Mezerei in Germania, Tyrolia, Italia.

60. **D. Microthelia grandiuscula** Anzi, Rehm Hedw. 1879, p. 165. 2703
Hab. in cortice Salicum in Italia media.

61. **D. Microthelia confusa** (Garov.) Rehm Hedw. 1879, p. 165. 2704
Hab. in cortice nucis Juglandis prope Loveno Ital. bor.

MASSARIELLA Speg. Fungi Arg. Pug. I,. pag. 2 tabulæ. (Etym. a *Massaria*, cujus est analogum genus). — Perithecia cortice nidulantia, subcoriacea; ostiolo vix erumpente, pertuso. Asci octospori, paraphysati. Sporidia bilocularia, fuliginea, strato hyalino obvoluta.

1. **Massariella bufonia** (B. et Br.) Speg. l. c., *Massaria bufonia* (B. et Br.) Tul. Carp. II, p. 237, Sacc. Fungi ital. t. 421, *Sph. bufonia* B. et Br. Ann. N. H. n. 629, t. 10, fig. 13. — Peritheciis sparsis, globosis, depressiusculis, majusculis; ostiolis brevibus peridermium perforantibus; ascis cylindricis 200 ≃ 20, paraphysatis, octosporis; sporidiis monostichis ellipsoideis, uniseptatis, leniter constrictis, utrinque rotundatis, fuligineis, varie guttatis, strato hyalino obvolutis, 25–30 ≃ 15 (sine muco). 2705

Hab. in ramis corticatis Quercuum in Britannia, Italia, Germania, Amer. bor. — Specimina americana præbent sporidia paulo minora, nempe 15–20 μ. longa. *Massaria* n. 74 in Britz. et Rehm Augsb. Pilz. p. 81 huic verisimiliter affinis est.

2. **Massariella vibratilis** (Fuck.) Sacc., *Massaria vibratilis* Fuck. Symb. myc. p. 154 (nec Fr.), Sacc. Reliq. Lib. II, n. 134, t. XIX, fig. 5. — Peritheciis peridermio tectis, gregariis, globoso-depressis, majusculis, ostiolo crasso perforato erumpente; ascis teretibus, breve stipitatis, 160–170 ≃ 16–20, octosporis; sporidiis oblique monostichis, oblongis, utrinque rotundatis, medio constricto-1-septatis, 22–25 ≃ 9–10, olivaceo-fuligineis, nubilosis, strato hyalino tenui obvolutis. — Pycnidium *Diplodiam Cerasorum* sistit: peritheciis maximis, semper tectis, sparsis cæspitosisve, lentiformibus, extus olivaceo-pulverulentis; stylosporis oblongis, didymis, fuscis, subopacis, 20 ≃ 8 sistit. 2706

Hab. in cortice Pruni domesticæ et Cerasi in Gallia et Germania.

3. **Massariella australis** (Cooke) Sacc. *Massaria australis* Cooke Grev. VIII, p. 67. — Sparsa, tecta, inconspicua; peritheciis depressis; ascis clavatis; sporidiis lanceolatis, uniseptatis, constrictis, brunneis, 45–50 ≃ 12–14; stylosporis adsociatis (*Corynei?*) clavatis, 3–5-septatis, brunneis, hyalino-stipitatis, 50 ≃ 14. 2707

Hab. in corticibus, Melbourne Australiæ.

4. **Massariella sudans** (B. et C.) Sacc. *Massaria sudans* B. et C. 2708
North Amer. Fungi n. 980. — Omnino tecta; peritheciis circinantibus («genuine?»); ascis linearibus; sporidiis oblongis, obtusis, uniseptatis, 40 μ. longis.

Hab. in cortice Aceris in Carolina infer. Amer. bor.

5. **Massariella Curreyi** (Tul.) Sacc. *Massaria Curreyi* Tul. Carp. II, 2709
p. 231, Sacc. Fungi ital. t. 420, Cooke Handb. n. 2534, *Sphæria Tiliæ* Curr. Linn. Trans. XXII, t. 59, f. 104 (nec Auct.). — Peritheciis tectis $^1/_3$-$^1/_2$ mill. diam.; nigris, globulosis, ostiolo papillato, vix peridermium perforante; ascis crasse clavatis 80-90 ≃ 25, paraphysibus, octosporis; sporidiis subdistichis obclavatis, 1-septato-constrictis, fuligineis, loculo superiore crassiore, 35 ≃ 12-14, strato hyalino obvolutis.

Hab. in ramis Tiliæ europeæ in Britannia (Currey) et Italiæ bor. (Passerini).

6. **Massariella syconophila** (Schulz.) Sacc., *Splanchnonema ficophilum* 2710
Schulz. Myk. Beitr. 1820, p. 653. — Peritheciis corticolis, subcoriaceis, globoso-depressis; ascis crasse cylindraceo-clavatis, longe paraphysatis 4-6-sporis; sporidiis inæqualiter bilocularibus, biguttatis, fuligineis, strato angusto mucoso cinctis, loculis subinde secedentibus, 42-54 ≃ 20-32.

Hab. in ramis corticatis Fici Caricæ in Austria, socia *Diplodia.*

PARODIELLA Speg. Fungi Arg. Pug. I, p. 178. (Etym. a cl. *D. Parodi,* chemico et botanico Bonariæ). — Perithecia superficialia, globosa, astoma, atra, basi foliis adnata. Asci cylindraceo-clavati, octospori, typice paraphysati. Sporidia didyma, obscure fuliginea.

1. **Parodiella perisporioides** (Berk. et Curt.) Speg. l. c. *Dothidea* 2711
perisporioides B. et C. North Amer. Fungi n. 880. — Peritheciis globosis, 150-200 μ. diam., astomis, lævibus, atris, superficialibus, basi adnatis, densissime gregariis, sæpe totum folium occupantibus, contextu membracaceo-parenchymatico, olivaceo-fuligineis; ascis clavatis, breve pedicellatis, sursum rotundatis, 120 ≃ 20-24, paraphysibus filiformibus obvallatis, octosporis; sporidiis distichis, elliptico-biconicis, medio 1-septato-constrictis, primo loculis uniguttulatis dein eguttulatis, loculo superiore paulo tumidiore, quandoque leniter curvulis, utrinque obtusiusculis, læte fuligineis, 28-30 ≃ 10-11.

Hab. ad folia viva Rhyncosiæ, Indigoferæ, Desmodii

etc. in Amer. bor. et austr., Ceylon, Bombay, Natal. — Perithecia sæpe dense reticulatim digesta.

2. **Parodiella circinata** (Kalch. et Cooke) Sacc., *Dothidea circinata* K. et C. Grev. IX, p. 32. — Amphigena, inæqualis, minuta, convexa, atro-nitida, circulari-gregaria; ascis clavatis; sporidiis distichis, inæqualiter 1-septatis, 12 ≃ 6, fuscis. 2712

Hab. in foliis vivis Leguminosarum in Africa australi.

3. **Parodiella puncta** (Cooke) Sacc., *Dothidea puncta* Cooke in Grev. vol. X, p. 128. — Sparsa, atra, convexa, punctiformis; ascis clavatis; sporidiis ellipticis, utrinque leniter attenuatis, uniseptatis, fuscis, 20 ≃ 7.5. 2713

Hab. in foliis Dalbergiæ armatæ, Inanda Natal (I. M. Wood). — Perithecia parcissime sparsa.

AMPHISPHÆRIA Ces. et De Not. Schem. Sfer. ital. pag. 49, p. p. (Etym. *amphi,* circa et *sphæria).* — Perithecia sparsa vel subgregaria, superficialia vel emergentia, sphæroidea, ostiolo conoideo, raro inconspicuo, glabra, atra, plus minusve carbonacea. Asci cylindracei, octospori, paraphysati. Sporidia ellipsoidea vel oblonga, uniseptata, fuliginea vel intense olivacea.

I. *Arboricolæ et fruticicolæ.*

1. **Amphisphæria applanata** (Fr.) Ces. et De Not. Schema Sf. it. 224, *Trematosphæria applanata* Fuck. Symb. myc. pag. 162, *Sphæria applanata* Fr. S. M. II, p. 463. — Sparsa, atra, opaca; peritheciis lævibus orbiculatis convexis subtus applanatis, ostiolo simplici pertuso; ascis.....; sporidiis oblongis, inæqualiter didymis, loculo superiori minori, obtuso, loculo inferiori majori, ventricoso, acuminato, fuscis, 24 ≃ 8. 2714

Hab. in ligno duriore Quercus in Suecia, Germania, Italia. — *Trematosphæriæ pertusæ* subaffinis, sed forma differt et peritheciis innato-superficialibus, basi applanata, demum collabentibus, fere concavo-planis. Sub lente bene augente rugulosa; passim duo perithecia confluunt.

2. **Amphisphæria sardoa** De Not. Schema Sf. p. 223, *Sphæria sardoa* De Not. Micr. ital. Dec. VII, p. 110, fig. V. — Peritheciis ligno basi inculptis v. semiimmersis, e basi applanata globoso-conicis, carbonaceis; atris, ostiolo acutiuscule papillato, brevi; ascis 2715

cylindraceis breve stipitatis, aparaphysatis, 80 ≃ 7,5-8, octosporis; sporidiis oblique monostichis, bilocularibus, loculo superiore crassiore, leniter constrictis, badio-fuscis, 8-9 ≃ 4,5.

Hab. ad ligna vetusta quercina, Iglesias (Sardinia).

3. **Amphisphæria conica** (Lév.) Ces. et De Not. Schema Sf. it. p. 224, 2716
Sphæropsis conica (Lév.) in Demid. Voy. Crim. Bot. p. 112, *Sphæria Leveillei* Dur. et Mont. Syll. Crypt. n. 802 et Fl. Alg. p. 501, non Tulasne. — Denudata; peritheciis gregariis, basi applanata conoideis, lævigatis nitidis, ostiolo poriformi pertusis; ascis clavatis maximis, inter sese in nucleum subcellulosum conglutinatis; sporidiis octonis biseriatis ex ovoideo cymbiformibus transversim medio uniseptatis, fuscis, 50 ≃ 20.

Hab. ad truncos Quercus pubescentis, circa Castropoulo in Taurica (Léveillé), Quercus Suberis prope Philippeville in Algeria (Durieu), circa Brescia Longobardiæ (Cesati).

4. **Amphisphæria sepulta** (Mont.) Sacc., *Sphæria sepulta* Mont. Pl. 2717
Cellul. Cent. IX, p. 11. — Seriata; peritheciis phialiformibus immersis intus et extus atris, collis brevibus in tuberculo elliptico nigrefacto per porum evadentibus; ascis inter paraphyses elongatis cylindraceo-clavatis 8sporis, 150 ≃ 15; sporidiis ellipticis, fuscis, bilocularibus, leniter constrictis, uniseriatis, 30 ≃ 10.

Hab. in sarmentis Vitis viniferæ in Gallo-Provincia (B. Castagne).

5. **Amphisphæria fallax** De Not. Sf. ital. p. 69, t. 62. — Peritheciis 2718
dimidium millimetrum diametro vix excedentibus, superficiali-insculptis, epidermide tectis, sparsis, raro uno alterove contiguis, cum epidermide fuscescente, maculam superficialem supra perithecia ipsa sistente concretis, lenticulari-rotundatis, nigrescentibus, tenuibus, fragilibus, vertice in collum crassum, apice obtusum, epidermidem perforans, ostiolo exiguo, vix conspicuo perforatum abrupte attenuatis: ascis cylindraceis, 8-sporis, paraphysibus filiformibus, nucleiferis; sporidiis didymis, fusco-badiis, translucidis, junioribus in ascis adhuc inclusis, velamento mucoso obductis, 20-22 μ. long.

Hab. in cortice Quercuum prope Milano et Conegliano Ital. bor. — *Sphæria fallax* Pers. Icon. et descript. t. X, fig. 1,1-12 huc pertinere mihi videtur, etsi inter dubias a Friesio relata.

6. **Amphisphæria botulispora** (Cooke) Sacc., *Sphæria botulispora* 2719
Cooke Fungi Texas 143. — Gregaria, immersa; peritheciis atris, elongato-compressis, poro pertusis; ascis saccatis; sporidiis cylin-

draceis, rectis vel leviter curvulis, utrinque obtusis, uniseptatis, fuscis, cellulis inæqualibus 70–80 ≃ 12.

Hab. in ligno vetusto quercino, Houston, Texas Amer. bor. (Ravenel).

7. **Amphisphæria umbrina** (Fr.) De Not. Sfer. ital. p. 69, Sacc. Myc. Ven. Spec. p. 111, t. XI, fig. 15–17, Fungi ital. t. 442, *Sphæria umbrina* Fr. S. M. II, p. 461, *Sph. cavata* et *Sph. convexa* Nyl. — Peritheciis sparsis, semiemersis, sphæroideis, parte emersa hemisphærico-depressis, firmis, atris, ostiolo minuto, papillato, circiter 1 mill. lat; ascis cylindraceis, 115 ≃ 7, paraphysibus filiformibus obvallatis, octosporis; sporidiis monostichis fusoideo-oblongatis, 20–26 ≃ 6–8, 1-septatis, initio hyalinis, 2-nucleatis, dein fuligineis. 2720

Hab. in cortice crassiore Ulmi, Salicis, Alni, Quercus, Fraxini in Germania, Italia, Gennia.

8. **Amphisphæria pseudo-umbrina** Sacc. Myc. Ven. Spec. p. 112, t. XI, f. 18–20 *a, b.* Fungi ital. p. 443. — Peritheciis subsparsis, $^1/_2$–$^3/_4$ mill. d., peridermio circumcirca nigrificato insculptis, dein emergentibus, depressis, ostiolo breve papillato; ascis cylindraceis, 90 ≃ 7, paraphysibus filiformibus sæpe nucleiferis obvallatis, 8sporis; sporidiis ellipsoideis 16–18 ≃ 6–7, recte monostichis, initio lutescenti-hyalinis binucleatis, dein fuligineis, 1-septatis. 2721

Hab. in cortice duriore Aceris campestris, Prunorum etc. in Italia bor. et Gallia. — Hæc species et præcedens, in statu saltem juvenili, ad *Didymosphæriam* (sect. *Microthaliam*) nutant.

9. **Amphisphæria Spegazziniana** Sacc. Mich. I, pag. 32, Fungi ital. tab. 135. — Peritheciis dense gregariis, superficialibus vel basi breviter insculptis, e globoso depressis, $^1/_4$ mill. diam., carbonaceis, rugulosis, brevissime applanato-papillatis; ascis cylindraceis breve stipitatis 80–85 ≃ 8–9 apice membrana integra truncatis, paraphysibus filiformibus crebris obvallatis, octosporis; sporidiis distichis vel oblique monostichis, breve fusoideis 15–18 ≃ 5–5$^1/_4$, constricto-1-septatis granulosis, olivaceo-fuscis. 2722

Hab. in ligno decorticato putri Pyri, Conegliano, Ital. bor. (Spegazzini). — Habitus *Melanommatis Pulvisculæ* (Curr.).

10. **Amphisphæria Hesperidum** Penz. Fung. Agrum. n. 28. — Peritheciis basi adnata superficialibus, gregariis, globulosis, vertice obtusis, obsolete ostiolatis 205 μ. diam.; contextu indistincte celluloso, subcarbonaceo; ascis teretiusculis, brevissime crasseque stipitatis, 54–57 ≃ 10–12, paraphysibus filiformibus crassiusculis obvallatis, octosporis; sporidiis distichis, breve clavulato-fusoideis, 2723

14–15 ≃ 4–5, leviter curvis, uniseptatis, constrictis, dilute fusco-olivaceis.

Hab. in ligne decorticato Citri Aurantii in frigidariis Horti Patavini, Ital. bor. (Penzig).

11. **Amphisphæria bisphærica** (C. et E.) Sacc., *Sphæria* (sub-tectæ) *bisphærica* C. et E. Grev. VIII, p. 41. — Semi-immersa; peritheciis atris, papillatis, hinc inde gregariis; ascis cylindraceis; sporidiis uniseriatis, ellipticis, uniseptatis, medio constrictis, brunneis, 12 ≃ 7. 2724

Hab. in ligno decorticato Pyri Mali, New Jersey Amer. bor.

12. **Amphisphæria stilbostoma** Niessl Hedw. 1876, p. 117. — Peritheciis gregariis, erumpentibus, sphæroideis, subtilissime rugulosis atris, duris, amplis, ostiolo crasso, abrupte conico, nitido; ascis tubulosis vix 120 ≃ 20; sporidiis 8 monostichis oblongis, rectis vel parum curvatis, utrinque obtuse rotundatis medio septatis, vix vel haud constrictis, fuscis, 18–22 ≃ 8–9. 2725

Hab. in cortice Fraxini, Baden Germaniæ. — Sporidia fere *Amph. umbrinæ*, sed ostiolo crasso nitido mox distinguenda species.

13. **Amphisphæria striata** Niessl Hedw. 1876, p. 117. — Peritheciis sparsis, immersis demum semierumpentibus, conoideis, cum ostiolo crasso retuso confluentibus, duris, fusco atris, subtilissime striatis, amplis; ascis valde elongatis, clavato-cylindraceis, stipitatis, 200–240 ≃ 21–24; sporidiis 8 primitus laxe distichis oblongo-lanceolatis, utrinque acutiusculis medio septatis valdeque constrictis, plerumque rectis, fuscis, 30–36 ≃ 15–18. 2726

Hab. in cortice Fraxini, Baden Germaniæ.

14. **Amphisphæria monstrosa** Bagn. Micol. Rom. Cent. II, p. 15, f. 2. Peritheciis minutis superficialibus, gregariis non contiguis, nigrescentibus, conoideis, vertice in collum crassum oblongatum apice obtusum; ostiolo minuto, superficie externa peritheciorum tuberculata; nucleo ochraceo; ascis ovoideis oblongatis 8-sporis, paraphysibus crassis, articulatis, hyalinis; sporidiis didymis, fusco-ochraceis, junioribus translucidis lutescentibus. 2727

Hab. in ramis Phillyreæ mediæ, Villa Pamfili, Roma.

15. **Amphisphæria inæqualis** H. Fab. Sphér. Vaucl. p. 85, t. II, f. 17. — Peritheciis sparsis, ligno exsiccato semi-immersis, globoso-conoideis, ad latera compressiusculis, obtusis, atris, apice pertusis, 1 mill. diam.; ascis cylindraceo-clavatis, brevissime stipitatis, 8-sporis, 90 ≃ 15; sporidiis submonostichis, didymis, obscure brunneis; loculis inæqualibus, altero majore, ovato, brunneo, altero minore, conoideo ut plurimum dilutiore, fere hyalino, 20–25 ≃ 10–12. 2728

Hab. ad ramos denudatos Oleæ europeæ, Vaucluse Galliæ. — Inæqualis dicta ob loculos inæquales, alter forsan sterilis, alter fertilis. An status normalis?

16. **Amphisphæria Olearum** De Not. et Ces. Schema Sf. ital. p. 224, 2729
Sphæria Olearum De Not. Micr. ital., Dec. VI, p. 100, fig. VI. Peritheciis gregariis, initio immersis, dein superficialibus globoso-conicis, carbonaceis, atris, ostiolo papillato-conico; ascis cylindricis, subsessilibus, paraphysatis 220 ≃ 17–18; sporidiis monostichis, oblongis, constricto-1-septatis, fusco-badiis, utrinque loculis minutis subtruncatis, hyalinis auctis, 38–40 ≃ 13.

Hab. in peridermio (dealbato) truncorum Oleæ europeæ, Sardinia, Liguria, Nicææ etc.

17. **Amphisphæria dichroa** (Dur. et Mont.) Ces. et De Not. Schema 2730
p. 224, *Sph. dichroa* Dur. et Mont. Syll. Crypt. n. 821 et Fl. Alg. p. 514, t. 26, f. 6. — Immersa; peritheciis solitariis in tuberculo ligneo nigrefacto globoso aut oblongo prominulo nidulantibus atris, intus, basi deficiente(?) albis; ascis cylindraceis deorsum attenuatis 80–90 ≃ 10; sporidiis oblongis, bilocularibus, fuligineo-olivaceis, 15 ≃ 10, quoque loculo guttulam globosam fovente.

Hab. in ramis decorticatis Pistaciæ Lentisci, Oran Algeriæ (Durieu).

18. **Amphisphæria æthiops** (B. et B.) Sacc., *Sphæria æthiops* B. et C. 2731
North Am. F. n. 918. — Nigerrima; peritheciis subglobosis, ostiolo papillæformi; ascis clavato-oblongis; sporidiis biseriatis clavato-oblongis, uniseptatis, 30–33 μ. long. strato mucoso interdum obductis.

Hab. in lignis putridis denigratis in montibus New-York.

19. **Amphisphæria agnocystis** (B. et Br.) Sacc., *Sphæria* (Pertusæ) 2732
agnocystis B. et Br. Fungi of Ceylon n. 1108. — Innata, conica, coffeicolor, lævissima; ostiolo papillæformi; sporidiis biconicis utrinque hyalinis.

Hab. in ligno emortuo in insula Ceylon australiore.

20. **Amphisphæria Beccariana** Ces. Myc. Born. p. 31. — Sparsa, su- 2733
perficialis, cubili insculpta; peritheciis magnis, ovalibus, umbonatis, nigrescentibus, gibberulosis; contextu valde duro anthracino; nucleo griseo-albescente; ascis..... ignotis; sporidiis fuscis, compressis, 15 ≃ 5–6, didymis, linguiformibus, episporio lineolato vel plicato viso.

Hab. ad lignum denudatum cariosum, Sarawak Bornei (Beccari). 2734

21. **Amphisphæria atrograna** (C. et E.) Sacc., *Sphæria* (Psilosphæria) *atrograna* C. et E. Grev. VIII, p. 15. — Sparsa, superficialis; pe-

ritheciis subglobosis, parvulis, leniter scabrosis, obtusis, atris, opacis; ascis cylindraceis; sporidiis uniseriatis, anguste ellipticis, uniseptatis, brunneis, 12–14 ≃ 5.

Hab. in ramis Liquidambaris, New Jersey Amer. bor.

22. **Amphisphæria dunarum** Speg. Fungi Arg. Pug. IV, n. 162. — 2735
Peritheciis sparsis v. subgregariis, superficialibus, basi ligno, sæpius circum circa nigrificato insculptis, lenticulari-conoideis, 250–300 μ. diam., carbonaceis, atris, nitidulis, ostiolo minute papillato-obtuso, vix pervio donatis; ascis cylindraceis, sursum obtuse rotundatis, deorsum breviuscule attenuato-stipitatis, 80–85 ≃ 10, paraphysibus filiformibus, longioribus obvallatis, octosporis; sporidiis ellipticis, utrinque obtusiuculis, 12–15 ≃ 5, non v. vix inæquilateralibus, medio 1-septatis non v. vix constrictis, granuloso-farctis, fuligineis.

Hab. in ramis truncisque decorticatis vivis Margyricarpi setosi, in dunis oceanicis prope «el Medano Blanco» Argent. Amer. merid.

23. **Amphisphæria majuscula** Speg. F. Argent. Pug. III, n. 59. — Pe- 2736
ritheciis globosis, levibus, majusculis $^1/_5$ mill. diam., ostiolo crasso, umboniformi-papillato, pertuso donatis, atris, crasse membranaceo-subcarnosis, contextu parenchymatico olivaceo; ascis cylindraceis, apice obtuse rotundatis, crassiuscule tunicatis, luce refracta 1-foveolatis, deorsum breve ac crassiuscule attenuato-pedicellatis, 90–100 ≃ 10, octosporis, aparaphysatis: sporidiis oblique monostichis, ellipticis utrinque plus v. minus obtuse rotundatis, 1-septatis, vix constrictis pluriguttulatis, 14–16 ≃ 6–7, olivaceis.

Hab. in foveolis cariosis rami decorticati emortui Schini mollis en Barracas del Sur, Argent. Am. merid.

24. **Amphisphæria congruella** Karst. Myc. Fenn. II, p. 56. *Amphi-* 2737
sphæria mediella Karst. Symb. Myc. Fenn. II, p. 245. — Peritheciis sparsis, superficialibus, sphæroideis, ostiolo brevi, conoideo, atris, latit. circiter 1 mill.; ascis cylindraceis, 200 ≃ 22 p. sporif., octosporis; sporidiis monostichis, elongatis vel oblongatis, utrinque attenuatis, uniseptatis, medio constrictis, loculo utroque uniguttulato, demum fuscis, 36–50 ≃ 14–19; paraphysibus numerosissimis, gracilibus.

Hab. supra corticem Populi tremulæ crassiorem in Mustiala Fenniæ. — *Rosellinicæ dispersellæ* (Nyl.), quacum mixtim crescit, extus sat similis. Qua nota differat *Amph. mediella* Karst, non liquet.

25. **Amphisphæria Emiliana** H. Fab. Sphér. Vaucl. p, 85, fig. 16. — Peritheciis sparsis, semi-immersis, globoso-conicis, mammæformibus, rugosiusculis, atris, ostiolo cylindrico, brevi, prominulo $^2/_3$ mill. diam.; ascis cylindraceis, elongatis, brevissime stipitatis, 8-sporis, 125-175 ≃ 12-15; sporidiis monostichis, ellipsoideis, initio hyalinis, multiguttatis, dein didymis, fuscis, loculis obscure 1-magniguttatis, 18-25 ≃ 10. 2738

Hab. ad corticem duriorem basi truncorum Populi albæ et Populi nigræ, rarius Ulmi campestris, Vaucluse Galliæ.

26. **Amphisphæria megalospora** (Mont.) Sacc. *Sphæria megalospora* Mont. Syll. Crypt. n. 807. Cent. II, n. 55, l. c., XIV, p. 324, t. 19. f. 4, non De Not. — Innato-erumpens; stromate effuso tenui nigro; peritheciis convexo-applanatis solitariis confluentibusque, epidermide primo tectis, demum denudatis pulvere albo velatis intus albo-farctis, ostiolo acuminato pertuso brevi; ascis cylindricis, 300 μ. longis; sporidiis monostichis, oblongis maximis, bilocularibus, medio constrictis utrinque obtusis, subinde loculo superiore crassiore, fuligineis, 40-50 ≃ 20. 2739

Hab. ad cortices arborum, Cayenna (Leprieur), Ceylon et Cuba (Berk.).

27. **Amphisphæria pædida** (B. et Br.) Sacc. *Sphæria* (pertusa) *pædida* B. et Br. Ann. Nat. H. n. 1396, t. X, f. 13, Grevill. t. 22, f. 5. — Peritheciis ovoideis, rugosis, opacis, liberis, brunneo-fuscis, ostiolo conico, denique deciduo; ascis linearibus; sporidiis monostichis, oblongis, bilocularibus, medio constrictis, fuscis, 12-15 ≃ 5-7,5. 2740

Hab. in ligno fagineo, in Britannia.

28. **Amphisphæria pusiola** Karst. Myc. Fenn. II, p. 57. *Did. pusiola* (Karst.) Rehm. Ascom. ill. n. 589. — Peritheciis subgregariis sparsisve, superficialibus, ovoideis aut sphæroideis verticeque conoideo-attenuatis, lævibus, ostiolo inconspicuo, atris, latit. 0,2 mill. (basi pilis brevibus, simplicibus, obtusis sparse cinctis, sec. Rehm); ascis cylindraceis, 95 μ. long., 70-85 ≃ 7-8 p. sporif.; sporidiis octonis monostichis, oblongatis, uniseptatis, fuscidulis, 10-14 ≃ 4-5. 2741

Hab. in ligno vetusto Salicis nigricantis prope Mustiala Fenniæ et ad ramulos querneos in Franconia Germaniæ. — Paraphyses, teste Rehm, ramosæ, septatæ. Cl. Rehm ad *Didymosphæriam* serius duxit, sed peritheciis liberis ad genus *Amphisphæriæ* multo propius accedit.

29. **Amphisphæria fœda** De Not. Sfer. it. p. 71, fig. Sacc. Myc. Ven. 2642

Spec. p. 112, t. XI, f. 21-23, F. it. t. 445. — Peritheciis superficialibus e globoso conicis inæquali-gibbis, ostiolo acutiusculo; ascis crasse cylindraceis, 80 ≃ 8-10, 8sporis; paraphysibus filiformibus obvallatis; sporidiis sparsis, distichis v. monostichis, obscure fuligineis, ovato-subclavatis, bilocularibus, loculo supero angustiore, apice subtruncatis, 12-15 ≃ 5½-6.

Hab. in palis Salicis cariosis pr. Valle Intrasca et Treviso, Italia boreali.

30. **Amphisphæria papillata** (Schum.) De Not. Sf. it. 68, f. 71, Sacc. 2743
Myc. Ven. Spec. p. 112, t. XI, fig. 24, *Sphæria papillata* Schum. Sæll. II, 161, Fr. S. M. II, p. 461. — Subsparsa; peritheciis orbicularibus semiimmersis lævibus atrofuscis, ostiolo papillato circumcirca impresso; ascis cylindricis, guttulato-paraphysatis, octosporis; sporidiis ellipsoideis subinde utrinque acutiusculis, 15 ≃ 8, uniseptatis, non constrictis, opace fuligineis.

Hab. in ligno carioso Salicum in Germania, Rossia, Italia. — Perithecia sparsa subinde duo confluentia, dimidiata, basi deficientia et ligno immersa, ceterum eximie superficialia, hemisphærico-globosa, majuscula, dura, persistentia; ostiolum papillæforme. Subiculum prorsus nullum, sed extus floccis tenuissimis quasi corticata apparet, licet glabra potius dicenda sit.

31. **Amphisphæria phileura** (C. et P.) Sacc. *Sphæria* (pertusæ) *phileura* C. et Peck., in Grev. V, p. 55, t. 81, f. 6. — Sparsa; peritheciis orbicularibus, depressis, semi-immersis, atris; ostiolo simplici, pertuso, ascis clavatis; sporidiis biseriatis, ellipticis, uniseptatis, brunneis, parum constrictis, 22 ≃ 10. 2744

Hab. in cortice Tiliæ americanæ, New York Americæ borealis (Peck).

32. **Amphisphæria melasperma** (Cooke) Sacc. *Psilosphæria melasperma* Cooke Grevill. VIII, p. 118. — Erumpens, demum denudata; peritheciis gregariis, globosis, atris, lævibus, subnitidis; ostiolo crasso, prominulo; ascis cylindraceis; sporidiis elliptico-acuminatis, nucleatis, demum uniseptatis, dein nigrescentibus, opacis, 35 ≃ 12. 2745

Hab. in ligno denudato, New York Amer. bor.

33. **Amphisphæria Passerinii** Sacc. et Sp. Mich. I, p. 374, F. it. t. 623. 2746
Lophiostoma angustilabrum Pass. in herb. Thüm. (*Lophiostomei* n. 4), non B. et Br. — Peritheciis sparsis, initio peridermio tumidulo velatis, dein eo secedente superficialibus, ligno nigrificato adnatis, globoso-depressis, majusculis ½-¾ mill. diam., obtuse papillatis, perforatis, contextu carbonaceo atro; ascis cylindricis deor-

sum attenuato-stipitatis, 150–180 ≃ 10–11 p. sporif., stipite 50–60 long., apice rotundato, obturaculo jodo intense cœrulescente, paraphysibus copiosis guttulatis, obvallatis, octosporis; sporidiis monostichis, oblongo-didymis, 22–23 ≃ 8–9, leniter constrictis, initio hyalinis, dein roseo-fuscis, denique fuligineis, 2-guttatis, vel 2-nucleatis.

Hab. in ramis emortuis Ulicis europæi, Parma Ital. bor. ubi legit cl. prof. G. Passerini et ad cl. Thuemen misit. — Ab *A. pseudo-umbrina* Sacc., aliisque affinibus rite diversa.

34. **Amphisphæria salebrosa** (C. et P.) Sacc. *Sphæria* (denudatæ) *salebrosa* C. et P. 29 Rep. on the St. Mus. New York. — Peritheciis gregariis v. confertis, globosis, nigris, depresso-umbilicatis, pertusis, radiatim sulcatis, $^1/_2$–$^3/_4$ mill. diam.; ascis cylindraceis v. clavatis; sporidiis lanceolatis, acutis, uniseptatis, constrictis, fuligineis, 35–50 ≃ 8–10; paraphysibus numerosis filiformibus. 2747

Hab. in ramis emortuis fruticum, Center, Amer. bor.

35. **Amphisphæria fibricola** Sacc. Mich. II, pag. 248. — Peritheciis sparsis, ligno semi vel fere penitus immersis, ovoideo-globulosis, carbonaceis, majusculis, $^3/_4$–1 mill. diam., ostiolo minuto papillato; ascis..... (senio jam resorptis); sporidiis ovato-ellipsoideis, 14–16 ≃ 8–10, 1-septatis, denique leniter constrictis, 2-guttatis, fuligineis. 2748

Hab. in ligno pineo aëri diu exposito et indurato, Venezia (A. Rossi). — Etsi asci sint adhuc ignoti species optime distinguenda.

36. **Amphisphæria pinicola** Rehm Ascom. n. 135 (1872), *Didymosphæria alpina* Haszl. in Hözlem. Banat. 1873, p. 49, fig. 16. — Peritheciis sparsis, erumpentibus, dein in cortice sessilibus, semiglobosis, breviter papillatis, poroque pertusis, dimidiatis, atris, circa 0,5 mill. diam.; ascis cylindraceo-clavatis, crassis, (4–6–) 8-sporis, 120 ≃ 15, jodo cœrulescentibus; sporidiis ellipticis, medio constrictis, massa granulosa repletis, primitus, 1– dein 2-cellularibus hyalinis, denique fuscis, 21–24 ≃ 9–10 plerumque monostichis; paraphysibus numerosissimis, parce ramosis. 2749

Hab. ad ramos siccos Pini pumilionis et Mughi in alpibus editioribus Tyrolensibus et in Banatu. — Sec. Hazl. sporidia paullo angustiora, nempe 25 ≃ 7.

37. **Amphisphæria thujna** (Peck) Sacc., *Sphæria thujna* Peck 27 Rep. p. 110. — Peritheciis sparsis subliberis, hemisphæricis vel conicis, leniter rugulosis, fragilibus, tenuibus, ostiolis initio leniter 2750

papillatis, dein pertusis; sporidiis crassis, uniseptatis, oblongo-ellipsoideis, ad septum constrictis, 36-45 μ. long. coloratis.

Hab. in Amer. bor. Adirondack, in ligno emortuo Thujæ occidentalis.

38. **Amphisphæria tumulata** (Cooke) Sacc. *Sphæria* (immersa) *tumulata* Cooke Grev. VII, p. 4. — Immersa; peritheciis subglobosis, atris, ostiolis erumpentibus; ascis cylindraceis; sporidiis sublanceolatis, obtusis, uniseptatis, atro-brunneis, utrinque hyalino-apiculatis, 35-40 ≃ 12. 2751

Hab. in ligno Pini contortæ Sierra Nevada Californiæ. — Affinis *Valsariæ apiculatæ* sed sporidia multo crassiora et habitus alienus.

39. **Amphisphæria sapinea** Karst. Fung. Fenn. exsicc. 880, Myc. Fenn. I. p. 56. — Peritheciis sphæroideis, fusco-atris, ostiolo papillato; sporidiis monostichis, ellipsoideis, uniseptatis, fuscis, 34-44 ≃ 16-22. 2752

Hab. in ramis pineis in Fennia. — Præeunte ipso auctore, species ulterius inquirendæ.

40. **Amphisphæria? acicola** (Cooke) Sacc. *Lasiosphæria acicola* Cooke Grev. VII, p. 87. — Peritheciis subglobosis, papillatis, superne glabris, atro-brunneis, in bysso effusa, intricata nidulantibus; ascis cylindraceis; sporidiis uniserialibus, ellipticis, utrinque subattenuatis, uniseptatis, leniter constrictis, brunneis 28 ≃ 10. 2753

Hab. in foliis dejectis Pini, Rocky Mountains Amer bor. (Doct. Lyall). — In genere anceps ob byssi præsentiam: si sporidia hyalina fuissent, vera *Esiosphæria;* ceterum perithecia parte superiore prorsus glabra.

II. *Herbicolæ.*

41. **Amphisphæria pulcherrima** Speg. Nov. Add. n. 72 et Mich. II. p. 249. — Peritheciis globoso-conicis, in matrice sæpius dealbata quandoque superficialibus, atris, ostiolo obtusiusculo perforato donatis, contextu atro-carbonaceo 250-300 μ. d.; ascis cylindraceo-ventricosis, brevissime ac nodulose stipitatis, apice truncato-rotundato, paraphysibus paulo longioribus, crassiusculis, septatis ac guttulatis, obvallatis, octosporis 100-120 ≃ 30; sporidiis distichis vel rarius submonostichis, ellipticis medio uni-septato-constrictis, læte fuligineis, utrinque rotundatis, atque duobus parvulis protuberantiis depressis, hyalinis, mucosis cito diffluentibus donatis, longitudinaliter 2-3-striatis, rarius 2-guttulatis, 30 ≃ 12-14. 2754

Hab. in caulibus dejectis putrescentibus Thalictri aquile-

gifolii in alpinis *M. Marmolada* Ital. bor. — Species distinctissima; obturacula ascorum iodi ope intense cœrulescentia!

42. **Amphisphæria enteroxantha** Ces. Myc. Born. p. 21. — Peritheciis 2755
sparsis, minutis, superficialibus, obovatis, vertice depresso, ostiolo punctiformi, coriaceis, brunneis; nucleo aurantio; ascis longe stipitatis, e cylindraceo clavatis, acutis, 40–41 ≃ 4–5 (cum stipite), paraphysibus filiformibus æquilongis obvallatis, octosporis; sporidiis uniserialibus, invicem accumbentibus, luteolis, fusiformibus, septatis et medio constrictis, utrinque in apiculum hyalinum brevem acuminatis, 10 ≃ 2.

Hab. ad caulem lignescentem putridum, Sarawak, Borneo (Beccari). — Post peritheciorum delapsum foveola aurantiaca in matrice superest.

43. **Amphisphæria australis** Speg. F. Arg. Pug. I, p. 182. — Peri- 2756
theciis densissime gregariis, constipatis, globosis, ostiolo majusculo umbilicato, primo fulvescenti-rubescente donatis, glabris, dein totis atris $^1/_2$–$^3/_4$ mill.; ascis cylindraceis, apice rotundatis deorsum in pedicellum breviusculum desinentibus, octosporis, 120 ≃ 10–12 paraphysibus filiformibus obvallatis; sporidiis distichis vel oblique monostichis, elongatis, fusoideis 30–32 ≃ 6–7, medio 1-septato-constrictis, utrinque acutiuscule rotundatis crasse 1-guttulatis, fuligineis.

Hab. ad corticem secedentem caulium emortuorum Jusssiææ longifoliæ in paludosis secus Rio de la Plata a la Recoleta Amer. merid. — Species distinctissima; externe *Cucurbitariam* æmulans, sed superficialis nec erumpens; ostiolo umbilicato-perforato, rufo-rubescente; pulcherrima!

III. *In Monocotyledoneis et Acotyledoneis.*

44. **Amphisphæria culmicola** Sacc. Myc. Ven. Sper. p. 113, tab. XI, 2757
f. 26–29, F. it. t. 444. — Peritheciis sparsis, conoideis, $^1/_4$ mill. diam., ostiolo acutiusculo, atris, epidermide nigrificata insidentibus; ascis clavato-cylindraceis, subsessilibus, 90 ≃ 20, paraphysibus filiformibus ramosis obvallatis, 8sporis; sporidiis ovatis, didymis, medio constrictis, polis obtusiusculis, 24–26 ≃ 9–10, initio hyalinis 2-magniguttulatis, dein fuscis, 2–4-guttulatis.

Hab. ad basim culmorum emortuorum Cynodontis Dactyli, Padova et Cadore Ital. bor. — *A. melanommoides* Sacc. Mich. I, pag. 455, Fungi it. t. 455. A typo recedit peritheciis globosis, superficialibus, papillulatis, dense gregariis; notæ fructificationis

perfectissime tamen quadrant cum typo. In radicibus et culmis Arundinis Donacis putrescentibus Conegliano, Ital. bor.

45. **Amphisphæria diplasia** (Dur. et Mont.) Sacc. *Sphœria diplasia* Dur. et Mont. Syll. crypt. n. 822. Fl. Alg. p. 515, t. 27, f. 8. — Immersa; peritheciis sparsis ampullaceis membranaceis nucleoque fuscis, ostiolo dilatato exerto convexo perithecium lenticulare papillatum mentiente; sporidiis badio-fuscis, 25 ≃ 10, cymbiformibus medio constrictis bilocularibus. 2758

Hab. in parte lignosa culmorum Arundinis mauritanicæ, Alger (Durieu).

46. **Amphisphæria biturbinata** (Dur. et Mont.) Sacc. *Sphœria biturbinata* Dur. et Mont. Syll. n. 800 et Fl. Alg., I, p. 497, t. 26, f. 7. — Denudata, sparsa, majuscula; peritheciis crassis, sphæricis, atris opacis rigidis, basi inflexa subliberis; ascis sacciformibus obovatis, 160 ≃ 80, sporidia pauca biturbinata maxima foventibus. 2759

Hab. in Posidonia oceanica, Alger (Durieu).

47. **Amphisphæria Posidoniæ** (Dur. et Mont.) Ces. et De Not. Schema Sf. p. 224 *Sphœria Posidoniæ* Dur. et Mont. Syll. n. 804 et Fl. Alg. p. 502, t. 25, f. 8. — Denudata, adnato-superficialis, sparsa; peritheciis liberis dimidiatis hemisphærico-conicis, depressis, crassis, lævibus, extus intusque atris opacis, apice poro pertusis, tandem diffractis; ascis diffluentibus inter paraphyses dichotomas erectis, 250-300 ≃ 20; sporidiis 50-56 ≃ 16-17, nevicularibus, medio septatis, brunneis. 2760

Hab. in ima parte denudata caulium tam emortuorum quam vivorum in profundo mari scilicet adhuc vegetantium Posidoniæ oceanicæ, in pluribus locis littoris Africani, italici, gallici. — Species maxime insignis et quoad vegetationis medium fere paradoxa.

48. **Amphisphæria ventosaria** (Linds.) Sacc. *Sphœria ventosaria* Linds. Linn. Trans. XXVII, p. 346, t. 56. f. 10. *Microthelia ventosicola* Mudd. — Peritheciis thalli protuberantiis insidentibus, excipulo spurio thallino cinctis, levibus nigris v. pruinosis; sporidiis continuis, dein 1-septatis, constrictis, ellipsoideis v. ovoideis, fuligineis. 2761

Hab. in thallo Lecanoræ ventosæ, Lochnagar Britanniæ.

IV. *Dubiæ.*

49. **Amphisphæria? umbrinella** (B. et Br.) Sacc. *Hypoxylon umbrinellum* B. et Br. Fungi of Ceyl. n. 1075. — Late effusa; peritheciis minutis ovatis metulæformibusque umbrinellis materie fur- 2762

furacea vestitis; ascis linearibus; sporidiis subellipticis uniseptatis, demum echinulatis 12–13 ≃ 6–7.

Hab. in ligno denudato, Central province pr. Ceylon. — An potius *Valsaria* (Sect. *Phæosperma*)?

50. **Amphisphæria? prorumpens** (Bon.) Sacc. *Ascotricha prorumpens* Bonord. Abhand. p. 151, nec *Sphæria prorumpens* Wallr. — Peritheciis globosis, atris, aggregato-confluentibus, subimmersis, papilla parva conica præditis; ascis clavatis, simpliciter paraphysatis; sporidiis ellipticis, curvatis, 1-septatis, 2-guttulatis, fusconigris. 2763

Hab. in ligno denudato in Germania. — Quoad *Sph. prorumpentem* Wall. conf. Syll. nostra n. 642.

RHYNCHOSTOMA Karst. Myc. Fenn. II, p. 7. (Etym. a *rynchos*, rostrum et *stoma* ostiolum). — Perithecia sparsa vel gregaria, immersa vel erumpentia, sphæroidea, rostro diametrum perithecii æquante vel excedente ornata, carbonacea, atra, glabra. Asci cylindracei vel clavati, octospori, plerumque paraphysati. Sporidia ellipsoidea, uniseptata, fusca. — Fungilli ligni- vel corticolæ.

1. **Rhynchostoma cornigerum** Karst. Myc. Fenn. II, p. 57. — Peritheciis subsparsis, immersis, demum semiemersis, sphæroideis vel sphæroideo-ovoideis, atris, basi filamentis sparsis, longiusculis concoloribus obsessis, rostro valido, rudi, recto vel leviter curvulo, plerumque infra apicem nonnihil coarctato, longitudine perithecii, circiter 0,6 mill. lat.; sporidiis ellipsoideis vel oblongo-ellipsoideis, medio haud vel paullo constrictis, uniseptatis, fuscis, 8–10 ≃ 3–4. 2764

Hab. in cortice vetusto Betulæ in Lapponia rossica, ad Soukelo. — Asci nondum inventi.

2. **Rhynchostoma minutum** Karst. Myc. Fenn. II, p. 58. — Peritheciis sparsis, erumpentibus, sphæroideis vel sphæroideo-ovoideis, atris, rostro cylindraceo, nonnihil curvato, lævi, subconcolore, perithecio triplo longiore, circiter 0,7 mill. long., glabris, lævibus, circiter 0,2 mill. lat.; ascis clavatis, 30 ≃ 8, octosporis; sporidiis distichis, ellipsoideis, uniseptatis, dilute fuscis, 6–8 ≃ 3–4; paraphysibus filiformibus, ascos superantibus. 2765

Hab. in ligno vetusto duro truncorum stantium Juniperi communis prode Tammela Fenniæ.

3. **Rhynchostoma exasperans** Karst. Myc. Fenn. II, p. 58. — Peritheciis gregariis, ligno immersis, sphæroideis, basi filamentis sparsis, longiusculis obsessis, rostro cylindraceo, rudi, stricto, cras- 2766

siusculo, perithecio duplo longiore, rigido, apice obtusiusculo emergente, atris, circiter 0,5 mill. lat.; ascis subsessilibus, cylindraceis, 65 ≃ 6, p. sporif. 55 μ. longa, octosporis; sporidiis oblique monostichis, ellipsoideis, guttulis 2 majusculis præditis vel spurie tenuiter uniseptatis, 9–12 ≃ 4–5.

Hab. in ligno vetusto molli Salicis capreæ, Mustiala Fenniæ.

4. **Rhynchostoma Julii** H. Fab. Sphér. Vaucl. p. 84, f. 18–20. — Peritheciis initio epidermide tectis, tandem denudatis, solitariis vel 4–20 et ultra irregulariter coacervatis, basi globosis et in ligno fracido nidulantibus, sursum conico-clypeiformibus, expansis, rugosis, opaco-atris, in rostrum cylindricum nunc breve nunc perithecii altitudinem æquans aut superans abrupte productis; rostro recto vel cernuo, sub apice plerumque subtiliter marginato diam. partis immersæ 1 mill., partis emersæ et clypeiformis, $1^1/_2$, 2 mill.; ascis cylindraceis, breve stipitatis, 8-sporis, 100–125 ≃ 10–15; sporidiis oblique monostichis, oblongo-ellipticis, didymis, initio hyalinis, medio constrictulis, loculis magniguttatis granulosisque; dein opaco-fuscis, 18–25 ≃ 7–10. 2767

Hab. ad ramos exsiccatos Genistæ Scorpii, Vaucluse Galliæ. — Rostrum quandoque in papillam degenerat, et perithecia vertice poro modo perforantur.

5. **Rhynchostoma pachyceras** (Dur. et Mont.) Sacc., *Sphæria pachyceras* Dur. et Mont. Syll. n. 828 et Fl. Alg. pag. 486. — Tecta, emergens: peritheciis parallele seriatis, nigris, ovoideis cum ostiolo crasso corniformi subsulcato cuticulam discutiente confluentibus, demum seminudis; ascis tubulosis 165 μ. longis; sporidiis oblongis fusco-brunneis, medio septatis ibique leniter constrictis. 2768

Hab. in ramis Clematidis cirrhosæ, Bouzareah Algeriæ (Durieu).

6. **Rhynchostoma altipetum** (Peck) Sacc., *Sphæria altipeta* Peck Bot. Gaz. 1880. — Peritheciis minutis, subglobosis, immersis, nigris; ostiolis emergentibus subconicis, vel cylindraceis, perithecium subæquantibus; ascis cylindricis; sporidiis monostichis, oblongis, 16–17 ≃ 5, initio hyalinis, dein coloratis, prope extremitatem 1-septatis, prope alteram subhyalinis. 2769

Hab. in lignis emortuis, in montibus Washington Amer. bor. (C. G. Pringle). — Perithecia subinde seriatim disposita.

7. **Rhynchostoma badium** (Preuss) Sacc., *Sphæria badia* Preuss Fungi Hoyersw. n. 302. — Sparsum, dein liberum; peritheciis subglo- 2770

bosis lævibus, dilute badiis; ostiolo cylindrico-truncato; ascis cylindricis, octosporis; sporidiis ovatis, uniseptatis, subbicoilis (bilocularibus?) fuscis.

Hab. ad ramos Populi, Hoyerswerda Germaniæ.

DELITSCHIA Auersw. in Hedw. 1866, p. 49. (Etym. a prof. *Delitsch* Lipsiensi). — Perithecia sparsa, fimo immersa, sphæroidea, rostro emerso, atra, coriaceo-membranacea. Asci cylindracei paraphysati, octospori. Sporidia subellipsoidea, uniseptata, fusca, strato hyalino circumdata.

1. **Delitschia Auerswaldii** Fuck. Symb. myc. p. 241, *Delitschia didyma* Auersw. in Hedw. 1866, p. 49. — Peritheciis sparsis, immersis, coriaceo-membranaceis, $^3/_4$ mill. diam., ovatis, fuscis rostro crasso brevissime conico coronatis; ascis cylindraceis, 8sporis, paraphysibus filiformibus obvallatis, 250–300 μ. longis; sporidiis oblique monostichis, oblongo-ovatis, utrinque obtusis, bilocularibus, medio constrictis, fuscis opacisque, 52 ≃ 18, demum in articulos binos secedentibus. 2771

Hab. in stercore Capreolorum, Leporum et Cuniculorum in Saxonia et Rhenogovia.

2. **Delitschia bisporula** (Crouan) Hans. Fungi fim. dan, p. 107, t. IX, f. 7–11, Grevill. t. 94, f. 4, *Hormospora bisporula* Crouan Finist. p. 21. — Peritheciis ovoideis, nigricantibus, circ. $^1/_2$ mill. altis, in ostiolum breve conicum obtusum attenuatis, pilis rigidulis sursum vestitis; ascis cylindraceis, octosporis paraphysatis, 150 ≃ 15; sporidiis monostichis, oblongis, 1-septatis, constrictis, 27 ≃ 10, strato hyalino obvolutis, fuligineis. 2772

Hab. in fimo vaccino, cuniculorum etc. in Gallia, Britannia, Dania. — *Del. moravicæ* affinis,

3. **Delitschia chætomioides** Karst. Myc. Fenn. II, p. 60. — Peritheciis sparsis vel subgregariis, immersis, sphæroideis, atris, villo detersili fusco obvolutis, circiter 0,7 mill. diam., rostro emerso, rudi, inæquali, crasso, sæpe tuberculato, forma varia, 0,7 mill. long., 0,6 mill. crass.; ascis cylindraceis, 250 ≃ 30 p. sporif., parce paraphysatis; sporidiis monostichis, subellipsoideis, uniseptatis, fuscis, opacis, 38–50 ≃ 17–20. 2773

Hab. in fimo equino prope Mustiala Fenniæ.

4. **Delitschia congregata** Speg. Fungi Arg. Pug. IV, n. 163. — Peritheciis dense gregariis superficialibus vel semiimmersis, globosis 400–450, levissimis, in ostiolum cylindricum subæquilongum, molle 2774

rectum vel reflexum productis, atris, carnosulo-membranaceis, contextu parenchymatico, olivaceo-fusco; ascis cylindraceis, sursum truncato-rotundatis, crasse tunicatis, luce refracta 1-foveolatis, deorsum breve attenuato-stipitatis, 110–120 ≃ 8, octosporis, paraphysibus filiformibus septulatis vel guttulatis obvallatis; sporidiis oblique monostichis, elliptico-elongatis, 16–20 ≃ 6–7, utrinque obtusiuscule rotundatis, medio 1-septatis, non constrictis, 4-guttulatis, v. granuloso-farctis, non v. vix inæquilateralibus, fusco-olivaceis.

Hab. in trunco salicino putrescente socia *Coryne urnali*, rarissime, Recoleta, Argent. Amer. merid.

5. **Delitschia graminis** Niessl Not. Pyr. p. 48, tab. IV, fig. 23. — 2775
Peritheciis in culmis nigrescentibus v. fuscescentibus sparsis, erumpentibus, majusculis, 350–400 μ. diam., globosis, demum depressis, atro-fuscis, carnoso-coriaceis, glabris, ostiolo conico, perithecii semidiametrum subæquante; ascis e maximis, polymorpho-clavatis, superne inferneque attenuatis, stipitatis 200–300 ≃ 24–46, membrana interna apice incrassata, sporidiis 8, laxe distichis v. monostichis, oblongis, rectis, utrinque obtusiusculis, medio uniseptatis, biguttatis, atro-fuscis, opacis, strato gelatinoso cinctis, 33–36 ≃ 12–15; paraphysibus multis, parum superantibus, tenuibus, ramosis.

Hab. in culmis putridis Avenæ Parlatorii prope Liezen Styriæ. — Teste ipso Niessl *Amphisphæriæ culmicolæ* Sacc. affinis; an ergo (et quia non fimicola) potius ex hoc postremo genere?

6. **Delitschia minuta** Fuck. Symb. myc. p. 242, Grev. t. 94, f. 4. — 2776
Peritheciis multo minoribus, quam *D. Auerswaldii*, tectis, globosis, minute papillatis, atris; ascis sessilibus, cylindraceo-elongatis, 8sporis, 136–145 ≃ 14–15; sporidiis oblique monostichis, oblongo-ovatis, didymis, medio constrictis, fuscis, demum subopacis, annulo hyalino, angusto cinctis, 22 ≃ 8.

Hab. in stercore leporino et caprino prope Königstein Germaniæ et Forres Britanniæ.

6. **Delitschia moravica** Niessl Not. Pyr. p. 47, t. IV, f. 22. — Pe- 2677
ritheciis subliberis, plus minus gregariis, minutis, vix 200 μ. diam., subglobosis, cum ostiolo brevi crassoque conoideo sæpe curvato confluentibus, atris instructis carnoso-coriaceis; ascis tubulosis rarius parum clavatis, stipitatis 120–150 ≃ 20–28 p. sporif.; stipite 10–14 μ. long.; sporidiis 8, oblique monostichis, interdum irregulare distichis, oblongis v. ellipsoideis, rectis, medio septatis valdeque constrictis, utrinque apiculo verruciformi diluto v. subhyalino, strato

gelatinoso cinctis, atro-fuscis, subopacis, 20-21 ≃ 8; paraphysibus crassis, articulatis, ascos superantibus simplicibus vel sparse ramosis.

Hab. in stercore leporino prope Brünn Moraviæ, sociis *Sporormia intermedia, Sordaria macrospora* et *S. discospora.*

8. **Delitschia sordarioides** Speg. Fungi Arg. Pug. II, n. 73. — Peritheciis globoso-lenticularibus, $^1/_3$-$^1/_4$ mill. diam., olivaceo-fuscis, glabris, matrici semiimmersis, ostiolo papillato coriaceo-atro ornatis, contextu membranaceo, parenchymatico, dilute fusco-atro; ascis longe cylindraceis, sursum truncato-rotundatis, basi in pedicellum longum, ac gracilem attenuatis, 150-170 ≃ 10-14, octosporis, aparaphysatis (?); sporidiis subdistichis, primo continuis, cylindraceis, hyalinis, dein ellipticis, fuligineo-sub-opacis, utrinque rotundato-truncatis, 14-15 ≃ 7-8, excentrice (inferne) 1-septatis, ad septum non constrictis, loculis, jodi ope, nucleo-atro-fuligineo hyalino-ocellato ornatis, duas caudas cylindraceas hyalinas gerentibus, superiore sporidium æquantem; inferiorem pluries longiorem, 30-35 ≃ 5. 2778

Hab. in fimo vaccino secus Rio de la Plata cerca de la Recoleta, Argent. Amer. merid. — *Sordariæ coprophilæ* affinis, sed septo recedens; an generi *Delitschiæ* certe adscribenda sit nonnihil dubius sum. Speg. l. c.

9. **Delitschia Winteri** Plowr. Brit. Fung. in Grev. II, p. 188, t. 25, fig. 1. — Peritheciis semiimmersis, v. immersis, ostiolo cylindraceo, crassiusculo, curvulo, tuberculato, apice truncato subinde curvulo; ascis cylindraceis, deorsum breve attenuato-stipitatis, 450 ≃ 65-70, apice rotundatis, paraphysibus septulatis, hyalinis obvallatis, octosporis; sporidiis oblique monostichis, oblongis, constricto-1-sepaatis, 65-75 ≃ 29-35, utrinque rotundatis, primo flavis, dein opace fuligineis, strato gelatinoso crasso obvolutis. 2779

Hab. in fimo vaccino, ovino et cuniculorum, North Wootton Britanniæ, Conegliano Ital. bor.

10. **Delitschia elephantina** Pass. Funghi Abiss. p. 190, t. V, fig. 14. — Peritheciis minutis conicis hyphis reptantibus brevibus paucis affixis; ascis subclavatis rectiusculis vel curvis vix pedicellatis 8-sporis; sporidiis obscure distichis fusiformibus septatis, apicibus acutis, ad septum vix constrictis, primo hyalinis, tandem fuscescentibus. 2780

Hab. in stercore Elephantis, Keren Abyssiniæ (Beccari). — Asci (ex icone) 27 μ. circ. longi, sporidia 10 μ. circ. longa; sed dimensiones pro genere justo multo minores videntur.

OTTHIA Nits. in Fuck. Symb. myc. pag. 169. (Etym. a *C. A. Otth*, phytographo bernensi). — Perithecia erumpentia, cæspitosa, subsphæroidea, minute papillata, atra, glabra, carbonacea. Asci cylindracei octospori, paraphysati. Sporidia ellipsoidea, uniseptata, fusca. — Pycnides ut plurimum *Diplodiæ* species sistunt.

1. *Eu-otthia:* sporidiis fuligineis.

1. **Otthia Cratægi** Fuck. Symb. myc. App. I, p. 19. — Peritheciis in cæspites densos erumpentibus, majusculis, aterrimis, globosis, minute papillatis, demum perforatis; ascis stipitatis, cylindraceis, 8-sporis, 180–216 ≃ 14–16; sporidiis oblique monostichis, ovato-oblongis, didymis, ad septum constrictis, fuscis, subopacis, 25–28 ≃ 12–14. — Status pycnidicus sistit *Diplodiam Cratægi* Fuck.; status spermogonicus *Phomam Cratægi* Sacc. 2781

Hab. in ramis corticatis Cratægi Oxyacanthæ, Hallgarten Rhenogoviæ, Vittorio Italiæ bor., Vaucluse Galliæ.

2. **Otthia Pyri** Fuck. Symb. myc. App, I, p. 307. — Peritheciis ascigeris cæspitosis, erumpentibus, dein liberis, media magnitudine, ovato-globosis, papillatis, atris; ascis stipitatis, cylindraceis, 8sporis; sporidiis oblique monostichis, ovato-oblongis, utrinque obtusis, didymis, medio constrictis, fuscis, 28 ≃ 14; paraphysibus filiformibus. — Stat. pycnidicus sistit prob. *Diplodiam Pseudodiplodiam* Fuck. et *D. Malorum* Fuck. 2782

Hab. in ramis corticatis Pyri communis, rarius pr. Œstrich Rhenogoviæ.

3. **Otthia Pruni** Fuck. Symb. myc. p. 169. — Peritheciis gregariis, transversim erumpentibus, demum liberis, media magnitudine, ovatis, nigris, opacis, collo brevi, conico-cylindraceo, obtuso, quandoque oblique truncato, perforato; ascis elongatis, stipitatis, octosporis; sporidiis monostichis (?), ovato-oblongis, didymis, medio parum constrictis, atro-fuscis, 24 ≃ 12. — Stat. pycnidicus sistit *Diplodiam Pruni* Fuck. 2783

Hab. in ramis corticatis Pruni spinosæ in Germania (Fuck.) et Gallia (Fabre).

4. **Otthia Spirææ** Fuck. Symb. myc. p. 170. — Peritheciis gregariis cæspitosisve, erumpentibus, sæpe confluentibus, globosis, in collum conicum cylindraceumve, obtusum, perforatum, perithecium subæquans attenuatis, demum depressis, subtiliter rugulosis, fusco-atris; ascis cylindraceis, stipitatis, 8sporis, sporidiis didymis, ovato-oblongis, fuscis. 2784

Hab. in ramulis siccis Spirææ opulifoliæ et S. salicifoliæ, Reichartshausen Germaniæ, Gorizia Illyrii italici.

5. **Otthia populina** (Pers.) Fuck. Symb. myc. p. 170. *Sphæria populina* Pers. Sym. p. 50. Fr. S. M. II, p. 413. — Cæspitosa stromate compacto, peritheciis ovatis lævibus atris, ostiolo papillæformi; ascis cylindraceis, stipitatis; sporidiis monostichis, didymis, pallide fuscis. — St. pycnidicus sistit *Diplodiam mutilam* (Fr.) Mont. 2785

Hab. in ramis corticatis emortuis Populi pyramidalis et nigræ in Germania, Gallia, Britannia et Belgio. — Perithecia prominentia, oblongo-ovata, lævia, subnitida, primo massa ceracea farcta. Cæspites sæpius ampli, sed et subinde exigui; in his perithecia minus divergunt, subconnata.

6. **Otthia diminuta** Karst. Myc. Fenn. II, p. 58 (ut var. *O. populinæ*). *Sphæria populina* Fr. Syst. myc. II, p. 413, pr. p. — Peritheciis in cæspites per peridermium erumpentes, orbiculares densissime stipatis vel subconnatis, subsphæroideis vel subovoideis vel mutua pressione difformibus, vertice interdum depressis, ostiolo obsoleto vel impresso vel minute papillato, nitidulis, lævibus, glabris, atris, latit. circiter 0,4 mill.; ascis cylindraceis, 70–78 ≃ 7, octosporis; sporidiis monostichis, ellipsoideis, uniseptatis, ad septum haud vel vix constrictis, subfuscis, 10–12 ≃ 5–6; paraphysibus filiformibus, ramosis. 2786

Hab. in ramulis exsiccatis Populi nigræ in Mustiala Feniæ. — Ab *Otthia populina* differt cæspitibus minoribus, 1–1,5 mill. latit., stromate tenuiore, peritheciis subsphæroideis, subconnatis, minus divergentibus etc. Occurrunt peritheciis commixta spermogonia erumpentia, sphæroidea, atra, peritheciis minora, spermatia oblongata, simplicia, incoloria, 5–6 ≃ 2 includentia.

7. **Otthia ambiens** Niessl Hedw. 1881 p. 98. — Peritheciis dense cæspitosis hemisphæricis vel subglobosis, coriaceo-carbonaceis, atris, obscure umbilicatis, et papillatis; ascis clavato-oblongis, amplis 130–150 ≃ 40–50; sporidiis 8, inordinate 2–3-distichis, oblongis vel parum semilanceolatis vel elongato-pyriformibus, inæqualiter diblastis (uniseptatis), parte superiori valde majori, inferiori minori attenuatis, atro-fuscis, 45–52 ≃ 15–20; paraphysibus numerosis ramulosis guttulatis. 2787

Hab. in ramis Betulæ albæ siccis in Germania (ut videtur). 2788

8. **Otthia Doberæ** Pass. Funghi abiss. p. 189. — Cæspitosa, stromate cortici interiori similari; peritheciis globosis, atris, rugulosis, ostiolo papillæformi; ascis cylindrico-clavatis, inferne attenuatis, 8spo-

ris; sporidiis elliptico-oblongis, uniseptatis, ad septum non constrictis, castaneo-fuscis.

Hab. in cortice ramorum Doberæ glabræ, Kelseret Abyssiniæ (Beccari),

9. **Otthia Quercus** Fuck. Symb. myc. p. 170 *Cucurbitaria Quercus* (Fuck.) Sacc. Myc. Ven. Spec. p. 118, t. XII, fig. 10. — Pycnidium: *Diplodia Quercus* Fuck. l. c. — Peritheciis cæspitosis, confluentibus, primo tectis, dein liberis, maximis, hemisphæricis, punctulato-scabris, atris; ostiolis minutis, papillæformibus; stylosporis oblongis, guttulatis, fuscis, 30 ≃ 10 μ. crass.; peritheciis ascophoris pycnidia imitantibus, ostiolis vero longioribus, cylindraceis; ascis amplis, stipitatis, subclavatis, tunica crassa, 96 ≃ 24 p. sporif.; sporidiis octonis, inordinatis, oblongis, 1septatis, guttulatis, fuscis, 32 ≃ 12. 2789

Hab. in ramis corticatis Quercus in Germania et Italia. — « Asci late cylindracei, 140 ≃ 12–14, breve crasseque stipitati, 8spori; sporidia oblique monosticha, ovato-oblonga, fusca, 25 ≃ 12–14, plerumque constricto-didyma, raro loculo altero 1-septato et rarissime septulo longitudinali quoque diviso ».

10. **Otthia Rosæ** Fuck. Symb. myc. p. 169. — Peritheciis cæspitosis, globosis irregularibusve, nigris, opacis, minutissime papillatis; ascis cylindraceis, 224 μ. long., 8sporis; sporidiis monostichis, ovato-oblongis, utrinque obtusis, didymis, fuscis, 27-28 ≃ 11–15, sæpius 4-guttulatis. — St. pycnidicus sistit *Diplodiam Rosarum* Fr. 2790

Hab. in ramis Rosæ caninæ in Germania (Fuck. et Rehm).

11. **Otthia Syringæ** (Fr.) Niessl Hedw. 1876, p. 2. *Sphæria Syringæ* Fr. S. Myc. II, p. 492. — Cæspitosa, suberumpens, peritheciis subglobosis, depressis, rugulosis, nigris, ostiolo subtili; ascis cylindraceis, octosporis, 115–120 ≃ 12–13; sporidiis monostichis, ellipsoideis, constricto-1-septatis, 24 ≃ 10, fuligineis. 2791

Hab. in ramulis emortuis Syringæ vulgaris in Suecia et Britannia, — Perithecia mediæ magnitudinis, ad medium erumpentia, glabra, opaca, sub lente rugulosa, evacuata intus atra. Ostiolum sub lente papillatum conspicitur.

12. **Otthia Xylostei** Fuck. Symb. myc. App. I, p. 307. — Peritheciis in cæspitibus per epidermidem erumpentibus, ovato-globosis, opaco-nigris, in ostiolum conicum, demum perforatum attenuatis, media magnitudine; ascis cylindraceis, stipitatis, 4–8sporis; sporidiis oblique monostichis, oblongo-ovatis, didymis, ad septum constrictis, fuscis, 28 ≃ 14. — St. pycnidicus (*Diplodia* et *Hendersonia*) et spermogonicus adsunt, teste Fuck. l. c. 2792

Hab. in ramis corticatis siccis Loniceræ Xylostei, in Rhenogovia.

13. **Otthia Ulmi** H. Fab. Sphér. Vaucl. p. 86. — Peritheciis acervulos densos erumpentes efformantibus, rarius subsolitariis, globosis, atris, papillatis, $^1/_2$ mill. diam.; ascis amplis, cylindraceis, breve stipitatis, 8-sporis, 125–150 ≃ 18–20; sporidiis oblique monostichis, didymis, medio constrictis, initio pallidis, pluriguttatis granulosisque, tandem atro-fuscis; loculis plerumque 1-magniguttatis, 25–30 ≃ 10–15. 2793

Hab. ad ramos emortuos Ulmi campestris, Vaucluse Galliæ.

14. **Otthia corylina** Karst. Myc. Fenn. II, p. 59. *Otthia Coryli* Fuck. Symb. myc. App. I, p. 19. — Peritheciis in cæspites per peridermium erumpentes, plerumque dense stipatis, forma varia, plerumque sphæroideis, ostiolo obsoleto vel minute papillato vel impresso, atris, latis. 0,3–0,6 mill.; ascis pedicellatis, cylindraceis, 160 ≃ 18–20 octosporis; sporidiis oblique monostichis, ellipsoideis, uniseptatis, ad septum constrictis, fuscis, 22–30 ≃ 12–14, 2-guttatis; paraphysibus filiformibus. — Status pycnidicus sistit *Diplodiam Coryli* Fuck. 2794

Hab. in ramis exsiccatis Coryli Avellanæ in Fennia, Germania, Italia, Gallia. — Spermogonia (teste Karst.) peritheciis commixta, solitaria vel subcæspitosa, sphæroidea, peritheciis paullo minora, spermatia elongata, simplicia, hyalina, recta, 3–4 ≃ 0,5–1 crassa continentia.

15. **Otthia urceolata** Fuck. Symb. myc. p. 170. — Peritheciis gregariis cæspitosisve, majusculis, urceolatis, basi globosis, collo crasso, obtuso, retrorsum parum dilatato, perithecio triplo breviore, rarius collo cylindraceo, obtuso, atris, subtilissime reticulatis; ascis stipitatis, cylindraceis, 8sporis; sporidiis monostichis, ovatis vel ovato-oblongis, didymis, medio constrictis, magnitudine varia, plerumque 24 ≃ 16–18, fuscis; macrostylosporis in eodem perithecio, oblongis, 2–3septatis muriformibusque, fuscis. 2795

Hab. in ramis siccis corticatis Ribis alpini in Rhenogovia. 2796

16. **Otthia Brunaudiana** Sacc. Mich. II, p. 58. — Peritheciis globoso-depressis, breve papillatis, $^1/_4$ mill. diam., in cæspitulos parvos subcutaneos denique erumpentes aggregatis; contextu celluloso-pachydermatico, fusco; ascis cylindraceis breve stipitatis, apice tunica integra obtusis, 150 ≃ 16, paraphysibus filiformibus obvallatis, 8sporis; sporidiis oblique monostichis ovoideo-oblongis, 30 ≃ 14–15, con-

stricto-didymis, 2-guttatis, initio olivaceis, dein atrofuligineis, strato hyalino pertenui sæpe obvolutis.

Hab. in ramis Ribis sanguinei, Saintes Galliæ (Brunaud). Peritheciorum forma, sporidiisque longioribus ab *O. urceolata*, satis differre videtur.

17. **Otthia Aceris** Winter in Hedw. 1871, p. 162. — Peritheciis cæspitosis, erumpentibus, ovato-globosis, applanatis, papillatis, atris; ascis stipitatis, cylindraceis, 8-sporis; sporidiis monostichis, ovato oblongis, didymis, medio constrictis, fuscis, 34 ≃ 10; fungus pycnidicus sistit *Diplodiam subtectam* Fr. (= *D. Aceris* Fuck.). 2797

Hab. in Saxonia, Œderan, ad ramos aridos Aceris platanoidis (Winter).

18. **Otthia Alni** Winter in Hedw. 1871, p. 162. — Peritheciis tectis demum per epidermidem fissam erumpentibus, 3-5 aggregatis, nigris, rugulosis e basi globosa brevissime conicis, apice obtusis; ascis cylindraceis, breviter stipitatis, 8-sporis, 148 ≃ 14; sporidiis monostichis, ovatis v. ovato-oblongis, utrinque rotundatis, didymis, medio constrictis, fuscis, 21 ≃ 10, 2798

Hab. in Saxonia, Œderan, ad ramos aridos Alni glutinosæ (Winter).

19. **Otthia lignyodes** (B. et Br.) Sacc. *Sphæria* (cæspitosæ) *lignyodes* B. et Br. F. of Ceyl. n. 1111. — Effusa, congesta; peritheciis clavatis collabascendo cupulæformibus, opacis, subtiliter tomentosis; ascis clavatis; sporidiis oblongis uniseptatis leniter curvulis, 25 μ. longis (an tandem 3-septatis?). 2799

Hab. in ligno decorticato, Ceylon.

20. **Otthia Lisæ** (De Not.) Sacc. *Sphæria Lisæ* De Not. Micr. ital. Dec. III, p. 4, fig. III. Hedw. 1853, p. 34. *Cucurbitaria* (Lizonia) *Lisæ* Ces. De Not. Schema Sf. p. 215. — Peritheciis stromate tenui fuliginoso subcorticali insidentibus, confertis, atrofuscis globosis, v. subangulatis, rugulosis, ostiolo punctiformi impresso, dein subumbilicato; ascis lineari-oblongis, paraphysatis, 85 ≃ 18, octosporis; sporidiis didymis, ovatis, utrinque rotundatis vix constrictis e hyalino luteo-olivaceis, 30 ≃ 11-12. 2800

Hab. in ramis Berberidis in Italia boreali.

II. *Otthiella*: sporidiis subhyalinis (an tandem fuscis?).

21. **Otthia seriata** (Peck) Sacc. *Cucurbitaria seriata* Peck 28 Rep. on the St. Mus. New York. — Peritheciis cæspitosis, erumpentibus, in series longas flexuosas interruptas digestis, minutis, sub- 2801

globosis, nigris, intus albidis, subinde collabentibus, stromate mere corticali subferrugineo vel obsoleto; ascis cylindraceis vel subclavatis; sporidiis monostichis, v. stipatis, oblongo-ellipsoideis, leniter constrictis, 1-septatis, 10-13 μ. long., hyalinis (semper?).

Hab. in cortice emortuo Evonymi, Albany Americæ borealis. (C. Derol).

22. **Otthia Winteri** Rehm Ascom. Diagn. n. 86. *Gibbera Winteri* Rehm Ascom. n. 86, Wint. Diagn. in Flora 1873, p. 543. — Peritheciis cæspitosis, primo tectis, demum erumpentibus, semiliberis, fusco-atris, globosis, verruculoso-rugosis, papillatis, demum collabascentibus, 240-300 μ. diam.; ascis cylindraceis, sessilibus, 8-sporis, 90-130 ≃ 12-17; paraphysibus filiformibus, simplicibus, obscure septatis, guttulatis, ascos æquantibus; sporidiis distichis oblongis, uniseptatis, ad septum plerumque non constrictis, inæqualiter didymis, rectis vel parum curvatis, pallide luteolis, 17-22 ≃ 7-8. 2802

Hab. in ramulis siccis stantibus Aceris campestris Sugenheim Germaniæ.

23. **Otthia Hazslinszkyi** Sacc. *Sphæria*..... Hazsl. Sphær. Ros. p. 217. fig. 16-17. — Peritheciis subsparsis, majusculis, glabris, nigris verrucosis, subtectis, ostiolo erumpente; ascis simpliciter paraphysatis, cylindraceis, breve stipitatis, octosporis; sporidiis oblique monostichis, obovatis, apice obtusioribus, 1-septatis, vix constrictis, hyalinis. 2803

Hab. in ramis emortuis Rosæ in Banatu.

24. **Otthia alnea** (Peck) Sacc. *Cucurbitaria alnea* Peck 28 Rep. on the St. Mus. New York. — Peritheciis cæspitosis, erumpentibus, subastomis, nigris, intus albidis; cæspitulis peridermio transversim fisso cinctis; ascis cylindraceis, octosporis; sporidiis monostichis, oblongis, subacuminatis, uniseptatis, ad septum constrictis, subhyalinis, 2-4-nucleatis, 20-25 μ. longis. 2804

Hab. in ramis emortuis Alni, Center Amer. bor. — Adest simul *Torula alnea*, quæ forte st. conidicus *Otthiæ*.

MELANCONIELLA Sacc. (Etym. a *Melanconis*, cujus est analogum genus). — Perithecia in acervulos valseos, cortice innato, erumpentes digesta, conidiis *Melanconiorum* in eodem stromate comitantibus. Asci octospori, aparaphysati. Sporidia ovoideo-oblonga, 1-septata, hyalina, tandem olivacea v. fuliginea.

1. **Melanconiella spodiæa** (Tul.) Sacc. *Melanconis spodiæa* Tul. Carp. II, p. 127, t. 24, f. 10-13. — Pustulata; peritheciis circinantibus, 2805

decumbentibus, ostiolis in discum vix erumpentem $^1/_2$ mill. diam., conjunctis, stromate olivaceo-fuscescente; ascis cylindraceis deorsum attenuatis, 110 ≃ 9–12, octosporis; sporidiis oblique monostichis v. distichis ovato-oblongis, 18–20 ≃ 7–8, olivaceo-fuligineis, biguttatis, utrinque obtusis appendiculaque brevi truncata hyalina auctis. — St. conidicus sistit, teste Fuck., *Melanconium bicolor* Corda.

Hab. in ramis corticatis siccis Carpini Betuli in Gallia, Germania, Belgio et Italia. — *Sphæria melasperma* West., Lamb. Fl. myc. Belg. II, p. 357 (nec Fr.) verisimiliter huc spectat.

2. **Melanconiella chrysostroma** (Fr.) Sacc. *Valsa chrysostroma* Fr. 2806
Summa Veg. Scand. p. 412. *Sph. xanthostroma* Mont. et Fr. Ann. Nat. 1834, t. 12, fig. 4 (nec Schw.) *Melanconis chrysostroma* (Fr.) Tul. Carp. II, p. 125, t. XXIV, f. 14-20. Sacc. F. it. t. 453 (junior). — Pustulata; peritheciis circinantibus, subinæqualibus, decumbentibus, ostiolis breviter exsertis, pertusis, stromate discoque lutescentibus; ascis stipitatis, cylindraceis, 8sporis, 100-120 ≃ 10; sporidiis submonostichis, ovatis, utrinque obtusis, uniseptatis, ad septum constrictis, fuscis, 16 ≃ 8, initio hyalinis obtuseque utrinque apiculatis, raro cum macrostylosporis, oblongis, 8-10guttulatis, flavo-fuscis, 48 ≃ 16. — St. conidicus *Melanconium bicolor* β. *ramulorum* Corda sistit.

Hab. in ramis corticatis Carpini Betuli in Gallia, Germania, Britannia, Italia, Am. bor. — Citationes in Corylo et Quercu dubiæ mihi videntur.

VALSARIA De Not. et Ces. Schema Sf. it. p. 205 (Etym. a *Valsa*, cui vegetatione accedit). — Stroma *Valsæ* v. *Diatrypellæ*, innato-erumpens, corticolum (*Euvalsaria*), v. effusum, indeterminatum lignoque immersum (*Phæosperma* Sacc.). Asci typice paraphysati, tetra-octospori, cylindraceo-clavati. Sporidia elliptico-oblonga, 1-septata, fusca. — Pycnidia et spermogonia in nonnullis nota. — Huc duco *Myrmæcium* Nits. (nec Sacc.) et *Phæosperma* Karst. (an Nits.?); ego vero hoc postremo nomine utor ad species *Valsariæ* eutypeas distinguendas.

I. *Euvalsaria*: stromate valseo v. verruciformi, corticolo.

1. **Valsaria insitiva** Ces. et De Not. (sensu ampliore). Sacc. Myc. Ven. 2807
Spec. p. 148, t. XV, f. 5-10 (nec *Sph. insitiva* Tode), *Myrmæcium rubricosum* (Fr.) Fuck. Symb. myc. p. 227 p. p. — Stromate

forma et magnitudine variabilissimo nigro; nunc valseo, nunc diatrypeo; acervulis pulvinatis, sinuosis, tumidis, modo 1 mill. diam. non attingentibus, modo 5 mill. superantibus, atris; perithecis stromate immersis, phialiformibus, sæpe angulato-compressis, nigris, ostiolis discum non superantibus obsoletis, interdum substellatis; ascis cylindricis brevissime stipitatis, 90-100 ≃ 8-10, paraphysibus copiosis filiformibus, nucleolatis obvallatis, 8sporis; sporidiis constricto-1-septatis, didymis, utrinque rotundatis, 15-18 ≃ 8-9, primo lutescentibus, 2-4-nucleatis, dein obscure fuligineis. — St. micro-pycnidicus sistit *Coniothyrium insitivum* Sacc.

Hab. in cortice truncorum, ramorumque Gleditschiæ, Robiniæ, Berberidis, Evonymi, Quercus, Carpini, Æsculi, Ulmi, Fici, Broussonetiæ, Vitis, Cydoniæ, Pruni, Alni, Meliæ, Populi, Ulicis, Cratægi, Paliuri, Coryli, Rhamni, Syringæ, Rhois, Celtidis, Hibisci, Corni, Rosæ, Aceris, Fraxini, Sambuci, Calycanthi etc. in Germania, Italia, Lusitania, Gallia. — Ad hanc speciem vulgo citatur *Sphæria insitiva* Tode Meckl. II, p. 36, t. XIII, fig. 108, sed hæc, meo sensu, perfecte refert *Cryptovalsam ampelinam* Nits. Distinguenda est quoque *Valsaria rubricosa* (Fr.).

2. **Valsaria Celtidis** (Cooke) Sacc. *Valsa Celtidis* Cooke Grevill. V, p. 55, t. 81, f. 3. — Perithecis irregulariter circinantibus, subimmersis; ostiolis atris, in discum brunneum pruinosum emergentibus; ascis cylindricis deorsum attenuatis, octosporis; sporidiis uniseriatis, ellipticis, constricto-uniseptatis, brunneis, 20 ≃ 10. 2808

Hab. in ramis Celtidis in Carolina inf. Amer. bor. (Ravenel). — Perithecia 6-8 aggregata, linea nigra circumscripta.

3. **Valsaria cincta** (Curr.) Sacc. *Diatrype cincta* (Curr.) B. et Br. Ann. N. H. n. 846, *Valsa cincta* Curr. Linn. Trans. XXII, t. 48, f. 135. *Melogramma rubricosum* Plowr. Grev. VI, p. 25. — Perithecis irregulariter ovoideis, stromate subcoriaceo immersis, congestis; ostiolis peridermium perforantibus, pustulasque subrotundas efformantibus, furfure olivaceo-viridi conspersis; ascis cylindraceis, breve stipitatis, 8sporis; sporidiis obtusis, constricto-1-septatis, fuligineis, 17-18 μ. longis. 2809

Hab. in ramis denique decorticatis Fagi, Alni, Robiniæ (?) Brandon, Ringstead, Blackheath Britanniæ (Curr. Plowr.). — An vere distincta a *V. insitiva*?

4. **Valsaria Notarisii** (Mont.) Sacc. *Valsa Notarisii* Mont. Syll. n. 754. et Fl. Alg., I, p. 470, t. 25, f. 6. *Sph. Periplocæ* De Not. Microm. ital. 2810

VIII. — Pustulata, epidermidem perforans, tandem nuda; perithecciis ovoideis circinantibus atris, stromati corticali e cinereo nigricante immersis, ostiolis inclusis in discum erumpentem planum nigrum opacum rugulosum connatis; ascis cylindraceis 100 ≃ 10; sporidiis oblongis, medio septatis-fuscis 20 ≃ 10.

Hab. in ramis Periplocæ, circa Genuam (De Notaris) variarum arborum plantarumque in Algeria (Durieu), in ramis Robiniæ et Gleditschiæ in Carolina Americæ borealis.

5. **Valsaria syconophila** Schulz. Myk. Beitr. 1870, p. 652. — Pustulis corticolis, peridermio substellatim fisso cinctis; peritheciis nigris paucis, subglobosis in ostiola obtusa vix convergentia attenuatis; ascis cylindraceis, octosporis, paraphysatis; sporidiis monostichis constricto-bilocularibus, 18–23 ≃ 7–9, atro-fuligineis. 2811

Hab. in ramis corticatis Fici Caricæ in Austria. — An vere distincta a *Valsaria insitiva?*

6. **Valsaria? viticola** (Schw.?) Sacc. *Diatrype viticola* Schw. p. p. sec. Berk. N. Am. Fungi p. 166. — Tecta, emergens, in series parallelas crescens, fusco-nigra, stromate brunneo; peritheciis majusculis paucis globosis, ostiolis latentibus; sporidiis elliptico-oblongis, uniseptatis, leniter constrictis, 15 μ. longis. 2812

Hab. in ramis corticatis emortuis Vitis rotundifoliæ in Carolina inf. Amer. bor. — Etsi sporidiorum color non indicatus, tamen *Valsariæ* species videtur.

7. **Valsaria Diospyri** (Schw.) De Not. Recl. in Comm. Critt. II, pag. 482. *Sphæria Diospyri* Schwein. Syn. Car. n. 57, Fr. S. M. II, p. 372. — Tecta, emersa, verrucæformis, stromate corticali, peritheciis subepiphericis sparsis, ostiolis obsoletis; sporidiis (teste De Not.) ellipsoideis, bilocularibus, ad septum sæpius leniter constrictis, badiis. 2813

Hab. in ramis emortuis Diospyri Loti in Carolina (Schwein.) et in Ital. bor. (Daldini). — Pustulæ prominentes, difformes, 2 lin. latæ, epidermide tectæ, demum atroinquinatæ, indeque erumpentinudæ apparent. Perithecia minuta, globosa, monosticha, collo brevi, nam supra tuberculum innatum collocata, ob epidermidem tegentem fere peripherica, ostiolis minutis obsolete prominulis, demum perforatis pulverulentis inquinantibus. Stroma fuscum.

8. **Valsaria rubricosa** (Fr.) Sacc. M. Ven. n. 690. F. Ven. Ser. V, p. 183. F. it. t. 640. *Sphæria rubricosa* Fr. Elench. II, pag. 63. *Myrmœcium abietinum* Niessl Hedw. 1874, p. 42 et 49. *M. rubricosum* (Tul.) Fuck. Symb. 227 (sect. I). — Difformis tubercu- 2814

losa, rimoso-rugosa, rubiginosa, intus albido-cinerea, peritheciis periphericis immersis atris, nitidis; ascis cylindraceis, 110–120 ≃ 12–14, breve stipitatis, paraphysibus filiformibus copiosis obvallatis, 8-sporis; sporidiis oblique monostichis, ovoideo-oblongis, 15–16 ≃ 9–10, 1-septatis, leniter constrictis, fuligineis; adsunt spermatia ovoidea, 2–3 ≃ 1, hyalina.

Hab. in cortice Abietis, Juglandis, Quercus, Fagi, Alni, Cerasi in Gallia, Italia, Germania, Fennia, Chili, Guiana, Cuba, Ceylon. — Stromate molliore extus rubiginoso, intus pallidiore, rimoso-rugoso, sporidiisque crassioribus rite hæc species a *V. insitiva* dignoscitur. Descriptio Friesii l. c. (etsi Fr. in litt. ad Fuck. ad genuinum *Hypoxylon* pertinere asserat) bene quadrat cum specie præsente non vero cum *Myrm. rubricoso* auctorum, quod, meo sensu, *Valsariæ insitivæ* respondet.

9. **Valsaria Kunzeana** De Not. Recl. Pir. in Comm. Critt. ital. II, p. 482. *Sphæria decorticans* Kunze exs. nec Fr. — Acervulis valsoideis, pustulatis; peritheciis subdifformibus, aggregatis; ostiolis minutis subumbilicatis; sporidiis didymis, loculis subinæqualibus, badio-fuscis, dein prorsus opacis. 2815

Hab. in ramis Fraxini, Locarno Ital. bor. (Daldini).

10. **Valsaria parmularia** (Berk.) Sacc. *Valsa parmularia* Berk. n. Dec. fung. n. 308. Cooke Handb. n. 2506, Curr. Comp. Sphær. fig. 163 (nec n. 39). — Pustulis minutis; peritheciis circinantibus e latere compressis, ostiolis subindistinctis, umbonatis; ascis linearibus, octosporis; sporidiis monostichis, late ellipsoideis, 1-septatis, vix constrictis, fuligineis, 35 μ. longis. 2816

Hab. in cortice subvivo Quercuum in Gallia, Hispania et Britannia. — Extus *Anthostomatis turgidi* æmula.

11. **Valsaria anthostomoides** Sacc. Fungi Ven. Ser. IV, p. 18, F. it. t. 152. — Stromate diatrypeo oblongato, tumescente, indurato, ligno decorticato semiimmerso, superficie læviusculo, atronitidulo; peritheciis stromate inordinate immersis, globulosis v. sæpius e mutua pressione verticaliter ovoideis, angulosisve, vix $^1/_2$ mill. d., intus et extus nigris, ostiolis collo cylindraceo, superficiem stromatis non v. perparum excedentibus, obtusis; ascis cylindraceis, breve angusteque stipitatis, 100 ≃ 5, paraphysibus filiformibus obvallatis, 8sporis; sporidiis rectis v. suboblique monostichis, oblongo-ellipsoideis utrinque rotundatis, 14–16 ≃ 4–4$^1/_2$, 1-septatis, non constrictis, 2-guttulatis, fuligineis. 2817

Hab. in ligno denique denudato quercino, Vittorio Ital. bor.

— *Anthostomatis gastrini* formæ liberatæ similis, sed sporidiis bilocularibus statim dignoscitur. A *Valsaria Niesslii* Winter (sec. specim. orig.) stromate oblongo ligno decorticato semiimmerso præcipue differt.

12. **Valsaria quadrata** (Schw.) Sacc. *Myrmœcium quadratum* (Schw.) Rehm Asc. n. 325. *Diatrype quadrata* Schw. *Diatrype obesa* B. et C. *Diatrype exasperans* Gerard. in Hedw. 1874, p. 174. — Peritheciis subglobosis, stromate olivaceo-virente exceptis, peridermium pustulatim elevantibus, perforantibus, acervulosque elongatos efficientibus; ascis cylindricis 105 ≃ 8; sporidiis late ovoideis, obtusis, uniseptatis, medio constrictis, 14–15 ≃ 7,5–8, obscure fuligineis; paraphysibus filiformibus, guttulatis. 2818

Hab. in ramis corticatis Fagi ferrugineæ, Quercus, Ulmi, Liquidambaris, Aceris, Pruni, Rhois, in Carolina, Pensylvania etc. Amer. bor.

13. **Valsaria melastroma** (Fr.) Sacc. *Sphæria melastroma* Fr. S. M. II, 399. Scl. Suec. n. 223, ex Cooke Vals. of Un. St. 122, sub *Valsa* — Pustulata, subverrucæformis, peritheciis aggregatis, disco erumpente angulato nigro obsolete pertuso: sporidiis ellipticis, uniseptatis, fuligineis 32 ≃ 14. 2819

Hab. in cortice Ulmi in Suecia et Amer. bor. — Habitus *Diatrypellæ verrucæformis*, sed minus prominet et conceptaculum omnino corticale. Perithecia subsena, erectiuscula, conferta, profunde immersa, verticaliter collabentia. Discus epidermide angulato-fissa erumpens, a cortice interiore formatus, sed superficies plana, lævis, opaca, nigro-facta. Ostiola discum perforant, sed non prominent.

14. **Valsaria angularis** (Peck) Sacc. *Diatrype angularis* Peck Bot. Gaz. 1880. — Stromate minuto, vix 2 mill. diam., erumpente externe nigro v. nigricante, intus rubiginoso; peritheciis majusculis, paucis 1–6; ostiolis prominentibus, angulosis, compressis v. pyramidalibus; ascis cylindraceis; sporidiis monostichis, magnis oblongo-ellipsoideis, obtusis 1-septatis, fuligineis, 27–54 ≃ 15–18. 2820

Hab. in cortice Tiliæ americanæ, Vermout Amer. bor. (C. G. Pringle). — Stromata lignum non penetrant; sporidia subinde medio subconstricta.

15. **Valsaria æthiops** (C. et E.) Sacc. *Diatrype æthiops* C. et E. Grevill. VI, p. 10. — Irregularis, convexa, atra; peritheciis in stromate coriaceo congestis, ostiolis prominulis; ascis cylindraceis; sporidiis ellipticis, uniseptatis, brunneis, 20 ≃ 10. 2821

Hab. in ramis corticatis Mori New Jersey, Amer. bor. — Pustulæ e 3-4 peritheciis constantes. Perithecia ligno adnata et cortice excepta. Lignum circa pustulas nigrescit.

16. **Valsaria apatosa** (C. et E.) Sacc. *Valsa apatosa* C. et E. Grevill. VI, p. 12, t. 95, f. 1. — Orbicularis, tecta, convexa; peritheciis, 4-6 atris, congestis; ostiolis erumpentibus, in discum minutum, punctiformibus, atrum conjunctis; ascis cylindraceis; sporidiis 4-8, ellipticis, uniseptatis, brunneis, 35 ≃ 15. 2822

Hab. in ramis Nyssæ, New Jersey Amer. bor. — Perithecia majuscula peridermio tenui, cui adhærent, tecta.

17. **Valsaria Eucalypti** (K. et C.) Sacc. *Melogramma Eucalypti* Kalch. et Cooke. Grev. IX, 1880, p. 31. — Argillacea, elevata; stromate convexo, irregulari, confluente; pseudo-peritheciis in contextu excavatis; ascis cylindraceis; sporidiis uniseriatis, ellipticis, medio constrictis, uniseptatis, fuscis 15-18 ≃ 8, loculis subglobosis. 2823

Hab. in cortice Eucalypti Globuli in Africa australi.

18. **Valsaria Farlowiana** Sacc. Mich. II, p. 137. — Acervulis depresso-pulvinatis, gregariis, 1-1½ mill. diam., nigris, initio subcutaneis dein, cortice secedente, denudatis lignoque nigrificato impositis, peritheciis numerosis, globulosis, ostiolis in discum circularem umbilicatum desinentibus; ascis cylindraceis (evanidis), octosporis; sporidiis oblique monostichis oblongo-ellipsoideis, utrinque rotundatis, 15-18 ≃ 7-8, 1-septatis, leniter constrictis, granulosis fuligineis. 2824

Hab. in ramis Berberidis vulgaris Cambridge (Mass.) in Amer. bor. (Farlow). — Ab affinibus *V. insiliva* et *V. cincta* differt præcipue disco umbilicato, numquam virescente, stromatibus carbonaceis, potius quam coriaceis etc.

19. **Valsaria Peckii** (Howe) Sacc. *Valsa Peckii* Howe n. 27. Rep. on the St. Mus. t. I, f. 15-18. Ellis N. Am. Fungi n. 171. Cooke Valsa of Un. St. 122. — Peritheciis in acervulos valseos peridermio tectos, conoideos aggregatis, globulosis, majusculis; ostiolis conjunctim erumpentibus, teretiusculis, obtusis, atronitidulis; ascis cylindraceis stipitatis, 90-110 ≃ 6-6½ p. sporif., octosporis; sporidiis monostichis uniseptatis, fuligineis, 14-15 ≃ 5-6. 2825

Hab. in ramis Kalmiæ latifoliæ, New York (Howe), Vaccinii corymbosi, New Jersey (Ellis). — Perithecia ligno immersa v. semiimmersa.

20. **Valsaria Toxici** (Schw.) Sacc. *Valsa Toxici* (Schw.) Cooke Vals. of U. S. p. 122. *Sphæria* (circumscript.) *Toxici* Schw. Syn. Am. 2826

bor. n. 1330. — Conceptaculis majusculis, subrotundis, nigris rugosis, primitus tectis, demum cortice orbatis, sæpe longitudinaliter confluentibus; ostiolo centro aggregatis, teretibus obtusis; interdum difformibus et apice substellatis; peritheciis oblongis, stipatis seorsum in collum junctis, fuligineis: stromate parco albescenti, demum fuligineo circumdatis; ascis octosporis; sporidiis monostichis ellipsoideis, 1-septatis, fuligineis, 12 ≃ 5.

Hab. frequens in sarmentis et ramis Rhois radicantis in Carolina inf. Amer. bor. (Ravenel).

21. **Valsaria phlyctænodes** (Mont.) Sacc. *Valsa phlyctænodes* Mont. 2827
Syll. Crypt. n, 771 et Fl. Alg. p. 468, sub *Sphæria.* — Initio cortici innata, demum nuda, confluens, convexa; peritheciis tenuibus stromati cinereo-nigro immersis, ostiolis erumpentibus quaternatim connexo-stellatis; ascis cylindraceo-clavatis, 130 μ. longis; sporidiis oblongis tandem fuscis, bilocularibus, 15 ≃ 4.

Hab. in ramis Salicis pedicellatæ emortuis, Bone (Durieu). 2828

22. **Valsaria? purpurascens** (DC.) Sacc. *Sphæria purpurascens* Dec. Flore Fr. 2, p. 118. *Valsa purpurascens* (DC.) Cr. Finist. p. 32. — In plagas transversales digesta; pustulis corticolis, v. tandem in ligno denudatis, planis leviter carnosis, sordide purpureis, rotundatis, 3-4 lin. latis, sæpe confluentibus et punctis exiguis nigris punctatis; peritheciis ovalibus, nigris in collum attenuatis; ascis....; sporidiis, teste Crouan, ovoideis 1-septatis.

Hab. in ramis Cerasi et Castaneæ in Gallia.

23. **Valsaria complexa** (Mont.) Sacc. *Valsa complexa* Mont. Syll. 2829
Crypt. n. 765. Cent. IV, n. 92, in Ann., 2, XX, p. 370. — Immersa, confluens, plana; stromate fuliginoso; peritheciis ovoideis in conceptaculo cupulæformi marginato atro incusis, ostiolis discum exsertum fuligineo-nigrescentem perforantibus nitidis; ascis subcylindricis 100 μ. longis; sporidiis suboctonis, oblongis, brunneis, medio transversim septatis; paraphysibus filiformibus, 2,5 μ. crassis.

Hab. in cortice populino, Reims Galliæ (Saubinet junior).

24. **Valsaria oleifera** (Tul.) Sacc. *Valsa oleifera* Tul. Carp. II, p. 2830
197. (vix nominata). — Peritheciis valseis.....; ascis.....; sporidiis ovatis, crassis, didymis, oleoso-granulosis albidis intra ascum, fuscis asco liberatis.

Hab. in ramis Populorum pr. Versailles Galliæ, frequens.

25. **Valsaria fulvo-pruinata** (Berk.) Sacc. *Diap. Chorostate fulvo-* 2831
pruinata (Berk.) Sacc. Syll. n. 2407. *Valsa fulvo-pruinata* (Berk.) Curr. Comp. Sphær. n. 129, fig. 125. — Pustulata, suban-

gulata, basi effusa; peritheciis oblongis collo elongato, stromate discoque ostiolis punctulato fulvis; ascis cylindraceis, breve stipitatis, octosporis; sporidiis submonostichis, ellipsoideis sæpius utrinque acutiusculis, 15–18 μ. long. primo pallidis dein atro-fuligineis, interdum biguttatis.

Hab. in ramis Platani occidentalis, Ohio Amer. bor. (F. G. Lea), Carolina (Curt.), Connect. (Wright). — Pustulæ 2 mill. cr. Species disci colore mox dignoscenda. — Colore sporidiorum a cl. Berkeleyo non indicato, ad *Chorostatem* spectare speciem censui, sed serius, visa descriptione et icone Curr., ad *Valsariam* ducendam non dubito.

26. **Valsaria Cinnamomi** (Ces.) Sacc, *Melogramma Cinnamomi* Ces. Myc. Born. p. 19. — Tuberculis erumpentibus, globosis, extus rubiginosis, ostiolis nigris punctiformibus, intus nigris; ascis tenuibus subclavatis demum linearibus 90 μ. longis; sporidiis uniseriatis ellipticis 10 μ. longis, fuscellis, uniseptatis. 2832

Hab. ad corticem Cinnamomi, Ceylon ad Kandy (Beccari). — Facies fere *Hypoxyli fusci.*

27. **Valsaria clethricola** (C. et E.) Sacc. *Valsa clethræcola* C. et E. Grevill. V, p. 92. — Peritheciis magnis, collis una erumpentibus; ascis cylindraceis; sporidiis biglobosis, brunneis, uniseptatis, 18 ≃ 9. 2833

Hab. in ramis Clethræ alnifoliæ, New Jersey Amer. bor.

28. **Valsaria nigrificata** (C. et E.) Sacc., *Valsa nigrofacta* C. et E. Grevill. VI, p. 12, t. 95, f. 4. — Peritheciis paucis magnis, epidermide nigrificata, nitida, tectis; ostiolis convergentibus; ascis cylindraceis; sporidiis uniseriatis, anguste ellipticis, uniseptatis, medio valde constrictis, brunneis, 22 ≃ 9, loculis fere globosis. 2834

Hab. in ramis Sassafras, New Jersey Amer. bor.

29. **Valsaria durissima** (Fuck.) Sacc. *Myrmæcium durissimum* Fuck. Symb. myc. p. 228. — Stromatibus durissimis, fragilissimis, profunde diffractis, erumpentibus, demum subliberis, orbicularibus oblongisve, ad unciam longis, 2–4 lin. latis, ferruginoso-atro-fuscis, intus subsuberosis, concoloribus; peritheciis periphericis, in stromate nidulantibus, minutissimis, globosis, atris; ostiolis prominulis, umbilicatis perforatisque, aterrimis, primo spermatiiferis; spermatiis minutis, cylindraceis, curvatis, hyalinis; demum ascigeris; ascis?; endosporis oblongo-ovatis, didymis, opaco-fuscis, 16 ≃ 8. 2835

Hab. in caudicibus corticatis siccis Alni glutinosæ, pr. Œstrich Rhenogoviæ.

30. **Valsaria fœdans** (Karst.) Sacc. *Phæosperma fœdans* Karst. Myc. 2836

Fenn. II, p. 55. — Stromate cortici basi immerso peridermioque tecto, orbiculari, hemisphærico-applanato, substantia corticis fere immutata formato; peritheciis in singulo stromate 7–25, concentrice monostichis, plus minus dense confertis, subsphæroideis, mutua pressione angulatis, atris; ostiolis in discum vel tuberculum disciforme, per peridermium erumpens, plus minus protuberans, atrum, forma varia, plerumque rotundatum, 0,5–1,5 mill. latum collectis, raro plus minus exsertis, obtuse conoideis; ascis cylindraceis, 75–85 ≃ 5–6 p. sporif.; sporidiis octonis monostichis, oblongatis, utrinque obtusis, vulgo rectis, tenuiter uniseptatis vel 2-guttulatis, ad septum haud constrictis, fuscis, 10–15 ≃ 4–5; paraphysibus discretis, filiformibus, guttulatis, gracilibus.

Hab. in ramis aridis Alni circa Mustiala Fenniæ. — Sporidia expulsa discum partesque corticis adjacentes ut pulvis olivaceo-ater sæpissime obtegunt.

31. **Valsaria Niesslii** (Wint.) Sacc. *Phæosperma Niessli* Winter in Hedw. 1874, p. 131. — Stromate cortice interiore immerso, crasso e basi suborbiculari vel ovali hemisphærico, intus fuscescente disco elliptico vel orbiculari, primo fusco, demum (sporidiis expulsis) nigro, erumpente, ruguloso; peritheciis in singulo stromate 10–40, basi stromatis immersis, irregulariter dispositis, plus minus dense stipatis, subglobosis vel pressione angulatis, atris, 600–700 μ. latis; ostiolis longissimis, crassis, rugoso-tuberculosis, apice incrassatis, aterrimis, discum papillæformiter superantibus, cir. 0,8–1,0 mill. long.; ascis cylindraceis longissime pedicillatis, 8-sporis 70–90 ≃ 6–7 p. sporif.; paraphysibus filiformibus, tenuissimis, guttulatis; sporidiis monostichis oblongatis, utrinque rotundatis, rectis vel curvatis, medio septatis, ad septum non constrictis, pallide fusco-atris, 8–15 ≃ 4–5. 2837

Hab. in ramis corticatis Betulæ albæ, Harth prope Leipzig Germaniæ. — *Valsariæ fœdanti* peraffinis.

32. **Valsaria megalospora** Auersw. Tauschver. *Myrmœcium megalosporum* (Auersw.) Niessl Not. Pyr. p. 55. — Stromate plus minus discreto, valseo, hemisphærico vel conoideo pulvinato ac peridermio cincto subtectoque, stipato, rarius confluente, extus atro-fusco haud pruinoso, intus fusco; peritheciis in singulo stromate 3–5 plerumque 4 monostichis, globosis, vel mutua pressione angulosis, collis crassis, brevibus, vertice conicis, parum compressis, prominentibus et convergentibus; ascis grandiusculis subcylindraceis inferne attenuatis et pedicellatis 240–250 ≃ 24–26, p. sporif.; 2838

stipite 50–70 μ. long.; sporidiis monostichis, cylindraceo-oblongis, utrinque sphæroideo-rotundatis, rectis, medio uniseptatis vix constrictis, saturate fuscis 33–42 ≃ 13–15; paraphysibus crassis simplicibus articulatis et guttulatis.

Hab. in cortice Alnorum pr. Leipzig Germaniæ (Auerswald). — Habitus fere *Anthostomatis turgidi*.

33. **Valsaria moroides** (C. et P.) Sacc. *Diatrype moroides* C. et Peck, 29 Rep. on the St. Mus. New York. — Minuta, erumpens, ostiolis confertis, prominulis hemisphæricis nigris discum denique obliterantibus; perithèciis stipatis, nigricantibus; ascis cylindricis; sporidiis monostichis, oblongis, 1-septatis, coloratis, 12–15 ≃ 5. 2839

Hab. in ramis emortuis Alni, Sandlake Amer. bor.

34. **Valsaria donacina** De Not. Schema Sfer. p. 305, *Sphæria donacina* De Not. Micr. ital. Dec. VI, p. 95, fig. III. — Acervulis convexo-colliculosis sæpe parallelis, confluentibusque erumpenti-superficialibus, nigris; peritheciis crassiusculis, duris, irregularibus, stromate immersis, ostiolis vix exertis, subobsoletis; ascis cylindraceis, basi angustatis, paraphysatis, octosporis, 100–150 ≃ 10–11; sporidiis monostichis, biloculari-constrictis, utrinque rotundatis, rufo-badiis, 15 ≃ 6–8, 2840

Hab. in culmis siccis sæpius ad internodia Arundinis Donacis etc. in Liguria, Venetia et Algeria. — *Sphæria donacina* Fr., teste Montagne, est sphæropsidea.

35. **Valsaria lophiostoma** (Hazsl.) Sacc., *Myrmœcium lophiostomum* Hazsl. Hedw. 1874, p. 142 et Frig. Ban. p. 55, fig. 11. — Mycelio corticem interiorem, sæpe etiam stratum supremum ligni penetrante passim in stromata atra carbonacea, hæmisphærica concreto, solummodo ostiolis peritheciorum epidermidem perforantibus; peritheciis in singulo stromate 3-multis, simplicibus, duplici immo et triplici strato super-positis, stratis peritheciorum successive evolutis, inferioribus recentioribus; nucleo primum albo, denique nigro; ascis linearibus, octosporis, paraphysibus septatis, obvallatis; sporidiis ovalibus, obtusissimis, diblastis, nigro-fuscis, 22 ≃ 12; peritheciorum ostiolis maximis, obovatis, compressis, lophiiformibus, radiatim circa columellam dispositis, rima radiali dehiscentibus. 2841

Hab. in ramis siccis ad Lunkany Banatus.

II. *Phœosperma* Sacc.: stromate effuso indeterminato endoxylo.

36. **Valsaria anserina** (Pers.) Sacc. Fungi Venet. Ser. IV, pag. 19, *Sphæria anserina* Pers. Icon. et descript. p. 5, tab. I, fig. 8–10, 2842

Cooke Handb. n. 2637. — Stromate effuso libri vel ligni superficiem tandem infuscante eisque immerso; peritheciis subdiscretis, gregariis, sphæroideis, vix $^1/_2$ mill. diam., ligno vel libro penitus vel fere immersis, atris, ostiolo ligni superficiem attingente et pustulatim elevante, rotundato; ascis cylindricis, breve stipitatis, 8-sporis; sporidiis monostichis, ovoideis vel suboblongis, didymis, ad septum lenissime constrictis, 16–20 ≃ 6–7, quandoque loculo altere paulo angustiore, 2-guttulatis, fuligineis.

Hab. in lignis in Britannia et Germania; in ramis decorticatis Broussonetiæ papyriferæ et Fici Caricæ, Selva, Treviso, sociis micropycnidiis (*Coniothyrium anserinum* Sacc.) globoso-angulosis, nigro-farctis, ligno immersis microstylosporas ellipsoideas, 5–$5^1/_2$ ≃ $2^1/_2$, fuligineas foventibus. — Huc verisimillime *Sphæria anserina* Pers. secundum B., Br. et Cooke, non vero sec. Roussel in Ces. et De Not. Schema 222, ubi sporidia 6 locularia habentur.

37. **Valsaria cariei** Sacc. Fungi Ven. Ser. IV, p. 19, Fungi it. t. 151. 2843
— Peritheciis uniserialiter tortuose per ligni superficiem subimmutatam contigue dispositis immersisque, globosis, $^1/_2$–$^1/_3$ mill. d., carbonaceis atronitentibus hyphulis fuligineis inferius vestitis; ostiolo crasso cylindraceo, breviter emergente, apice obtuse rotundato, subinde latiuscule hiante; perithecii contextu parenchymatico fuligineo; ascis cylindraceis 150 ≃ 12, apice obtusis, breve crassiusscule stipitatis, paraphysibus copiosis filiformibus guttulatis obvallatis, 8sporis; sporidiis oblique monostichis, oblongo-ovoideis, 25 ≃ 9–10, utrinque obtusiuscule acuminatis, medio constricto-1-septatis, 2-pluriguttulatis, intense fuligineis.

Hab. in ligno pineo fabrefacto, carioso; ubi perithecia tortuosas larvarum excavationes ordine sequuntur, Padova Italiæ bor. — A *Valsaria apiculata* (Curr.) cui habitu simillima, differt sporidiis absolute exappendiculatis medio (non excentrice) 1-septatis, constrictisque saturatius fuligineis, peritheciis inferne vestitis etc.

38. **Valsaria Saccardiana** Speg. in Mich. I, p. 393, Fungi it. t. 401. 2844
— Stromate lignum decorticatum late ambiente atque superficie atro-inquinante; peritheciis gregariis, ligno infossis, globosis, $^3/_4$ mill. diam., ostiolo rotundato, pertuso vix emergente; ascis cylindricis, noduloso-stipitatis, apice, lumine integro, obtusiusculis, p. sporif. 120–140 ≃ 7–8, stipite 50 ≃ 5–6, pseudoparaphysibus guttulatis obvallatis, octosporis; sporidiis monostichis oblongis, subfusoideis, 18–22 ≃ 5–6, constricto-1-septatis, utrinque obtusiusculis,

2- vel sæpius 4-nucleatis, indeque simulate 3-septatis, dilute olivaceis.

Hab. in ligno putri Lauri nobilis, Susegana, Italia bor. (Spegazzini). — A *Vals. anserina* (Pers.) Sacc., cui affinis, ascis conspicue longioribus, sporidiis longioribus, angustioribus, 4-nucleatis, dilute coloratis differt.

39. **Valsaria apiculata** (Curr.) Sacc. *Sphæria apiculata* Curr. Linn. Trans. XXII, p. 326, fig. 96 Cooke Handb. n. 2635. *Anthostoma trabeum* Niessl Beitr. p. 56, t. VII, f. 48. — Stromate immerso, exiguo ex albido cinerascente, vix evoluto; peritheciis nunc gregariis seriatis, nunc solitariis, innatis, majusculis, 300 μ. diam. ovoideo-subglobosis, carbonaceis, atris, collo crasso cylindrico, ostiolo ventricoso-incrassato, prominulo; ascis cylindricis, inferne attenuatis stipitatis, superne, retusis, 8sporis, 130-154 ≃ 12 p. sporif.; sporidiis monostichis, oblongis sæpe inæquilateralibus, 18-20 ≃ 6-7, unicellularibus plasmate bipartito, dein distinctissime infra medium uniseptatis (!), atrofuscis, opacis, utrinque obtuse rotundatis basi appendicula hyalina obtusa (ex episporio protuberante) auctis; paraphysibus filiformibus guttulatis ascorum longitudine. 2845

Hab. in ligno pineo denudato pr. Graz Austriæ et in Britannia.

40. **Valsaria fennica** (Karst.) Sacc. *Phæosperma fennica* Karst. M. F. II. 54. — Stromate effuso, forma varia, plerumque longitudinaliter expanso, valde elevato, e fusco atro, parte inferiore intus substantia ligni plus minus mutata formato, fuscescente, long. 0,5-0,3 cm., lat. circiter 0,5 cm.; peritheciis monostichis sed ordine inæquali dispositis, alte immersis, ovoideo-oblongatis, majusculis, atris, in colla elongata abrupte attenuatis, ostiolis superficialibus, valde incrassatis, elongatis, cylindraceis, integris, lævibus vel rugosis, interdum subrotundatis, demum pertusis, usque ad 0,5 mill. longis; ascis cylindraceis, 70-90 ≃ 6 p. sporif., octosporis, paraphysatis; sporidiis oblique monostichis, 2-guttulatis, v. uniseptatis, oblongatis, rectis, fuscis, 9-14 ≃ 3-4. 2846

Hab. in ligno vetusto Betulæ? in par. Tammela Fenniæ.

41. **Valsaria? gregalis** (Schw.) Sacc. *Sphæria gregalis* Schw. in Fr. Elench. Fung. II, p. 68. — Irregulariter effusa, peritheciis tenerrimis globosis acutiusculis, pulverulentis, liberis connatisque, papillatis, fuscis, stromate tenuissimo; sporidiis oblongis, uniseptatis 12-13 μ. longis. 2847

Hab. ad ligna putrida Carolinæ Americæ borealis. — Stroma

tenuissimum, indeterminatum. Perithecia minuta, exacte globosa, nunc connata, nunc tantum stipata, admodum fragilia, diffracta cellulas referentia, colore obscure fusco-nigricante. Ostiolum exiguum, papillæforme.

42. **Valsaria? Beaumontii** (B. et C.) Sacc. *Hypoxylon Beaumontii* B. et C. North Amer. Fungi n. 864. — Peritheciis globosis connatis; ostiolo distincto papillæformi; ascis linearibus; sporidiis oblongo-ellipticis uniseptatis, 10 μ. long., monostichis. 2848

Hab. in ramis decorticatis Coniferarum, Alabama, Helderberg, Amer. bor. (Berk., Peck.). — Perithecia satis minuta, brunnea dein nigra, glabra.

43. **Valsaria? nudicollis** (B. et C.) Sacc. *Hypoxylon nudicolle* B. et C. North Amer. Fungi n. 848. — Peritheciis connatis materie umbrina tectis; ostiolis prominentibus, nigris; ascis linearibus; sporidiis oblongis, angustis, uniseptatis. 2849

Hab. in ligno pineo, Carolina inf. Amer. bor. — Stratum subfuligineum continuum v. subinterruptum efficit.

44. **Valsaria hysterioides** Rehm Ascom. n. 633, Hedw. 1882, p. 75. — Stromatibus dense gregariis, ligno decorticato adnatis, elongatis, subobtusis, habitu fere *Hysteriorum*, 1–3 ≃ 1–1,5 mill. convexis, atris, longitudinaliter subtilissime striatulis ibique ostiolis perpaucis minutissimis, globosis, hic illic ornatis, intus albidis; peritheciis globosis, stromati immersis, in quoque stromate paucis; ascis cylindraceis, 8sporis, 120 ≃ 6–7; sporidiis ellipticis obtusis, medio plus minusve constrictis, 2-cellularibus, fuscis, 14–18 ≃ 4–5–6, monostichis; paraphysibus filiformibus, apice irregularibus, hyalinis, 2,5 μ. crass. 2850

Hab. ad truncum emortuum Sorbi Chamæmespili in alpe Haustatt prope Benedictenwand alpium Bavariæ (Arnold). — Ob stromata ligno decorticato adnata et subinsculpta ad hanc sectionem pertineret; sed ob eadem stromata definita aptius forte inter *Euvalsarias*.

CAMAROPS Karst. Myc. Fenn. II, p. 6. (Etym. *camara*, fornix et *ops* facies, ob stromata concamerata). — Stroma oblongum, parte immersa e substantia substrati plus minus mutata formatum, parte emersa crusta propriæ indolis, dura, crassiuscula, lævigata, atra undique tectum. Perithecia stromati immersa, monosticha, cylindracea vel tubuliformia, inæqualia, longissima, collo crustam penetrante ostioloque prominulo, hemisphærico, poro pertuso. Asci

cylindracei, octospori, aparaphysati. Sporidia subellipsoidea, fuscidula, uniseptata, 2-guttulata. — Genus *Bolinicæ* analogum inter phæodidymas.

1. **Camarops hypoxyloides** Karst. Myc. Fenn. II, p. 53. — Stromate 2849
cortici innato substantiaque ejus fere immutata formato, parte superiore deinde per peridermium laciniatim fissum erumpente. substantiaque propriæ indolis, crustam crassiusculam, atram vel fusco-atram efficiente, superne undique tecto, discreto vel confluente, effuso, ellipsoideo vel oblongato, planiusculo, longit. 1,5–7 cm., latit. 1–3 cm.; peritheciis stromati immersis, monostichis, densissime stipatis, subcylindraceis vel tubuliformibus, inæqualibus, varie angulatis vel complanatis, tenuibus, atris, longissimis, longit. 3–4 mill., crassit. 0,3–0,6 mill. collo brevi, angustissimo crustam penetrante ostioloque prominulo, hemisphærico, perforato vel umbilicato-pertuso instructis; ascis cylindraceis, 33 ≃ 4 p. sporif.; sporidiis octonis, oblique monostichis, subellipsoideis, spurie tenuiter uniseptatis vel 2-guttulatis, fuscidulis, 5–6 ≃ 2–2,5.

Hab. in cortice trunci Alni glutinosæ emortui Mustiala Fenniæ, parce.

REPERTORIUM

SPHÆRIACEARUM PHÆODIDYMARUM

SECUNDUM MATRICES

Obs. A. indicat *Amphisphœria*. — C. *Camarops*. — D. *Didymosphœria*. — De. *Delitschia*. — M. *Massariella*. — Me. *Melanconiella*. — O. *Otthia*. — P. *Parodiella*. — R. *Rhynchostoma*. — V. *Valsaria*.

Numeri 2644-2851 citantur 644-851.

Abies — V. 814.
Acer — D. 693. 694. — M. 708. — A. 721. — O. 797. 802. — V. 807. 818.
Æsculus — V. 807.
Alnus — A. 720. — O. 798. 804. — V. 807. 809. 814. 835. 836. 838. 839. C. 851.
Andromeda — D. 695.
Arctium — D. 685.
Artemisia — D. 678.
Arundo — D. 697. — A. 757. 758. — V. 840.
Avena — De. 775.

Berberis — D. 677. — O. 800. — V. 807. 824.
Betula — D. 668. 700. — R. 764. — O. 789. — V. 837. 846.
Broussonetia — V. 807. 842.

Calycanthus — V. 807.
Carex — D. 674. 698.
Carpinus — D. 690. — Me. 805. 806. V. 807.
Castanea — V. 828.
Celtis — V. 807. 808.
Cinnamomum — V. 832.
Citrus — A. 723.
Clematis — R. 768.
Clethra — V. 833.
Coniferæ — V. 848.
Cornus — D. 692. — V. 807.
Corylus — D. 677. — O. 794. — Me. 806. — V. 807.
Crataegus — D. 701. — O. 781. — V. 807.
Cydonia — V. 807.
Cynodon — A. 757.

Dalbergia — P. 713.
Daphne — D. 702.
Desmodium — P. 711.
Diospyros — V. 813.
Dobera — O. 788.

Empetrum — D. 657.
Epilobium — D. 678.
Eryngium — D. 686.
Eucalyptus — D. 677. — V. 823.
Eupatorium — D. 649.
Evonymus — O. 801. — V. 807.

Fagus — A. 740. — V. 809. 814. 818.
Ficus — M. 710. — V. 807. 811. 842.

Fraxinus — D. 693. — A. 720. 725. 726. — V. 807. 815.

Galium — D. 678. 683.
Genista — D. 662. 687. — R. 767.
Gleditschia — V. 807. 810.

Hibiscus — V. 807.
Humulus — D. 678.
Hypericum — D. 678.

Ilex — D. 656.
Indigofera — P. 711.
Iris — D. 674.
Iuglans — D. 704. — V. 814.
Iuncus — D. 698.
Iuniperus — D. 653. — R. 765.
Iussiæa — A. 756.

Kalmia — V. 825.

Lathyrus — D. 651.
Laurus — D. 691. — V. 844.
Lecanora — A. 761.
Leguminosæ — P. 712.
Liquidambar — A. 734. — V. 818.
Lonicera — D. 680. 682. — O. 792.
Lysimachia — D. 646.
Lythrum — D. 644. 678.

Margyricarpus — A. 735.
Melia — V. 807.
Melilotus — D. 678. 679.
Mentha — D. 678.
Monocotyledoneæ — D. 672.
Morus — V. 821.
Myricaria — D. 680.

Nyssa — V. 822.

Obione — D. 650.
Œnothera — D. 645.
Olea — A. 728. 729.
Opuntia — D. 684.
Origanum — D. 644. 678.

Paliurus — V. 807.
Parnassia — D. 647.
Peltigera — D. 675.
Periploca — V. 810.
Phillyrea — A. 727.
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ADDENDA *)

5¹. **Podosphæra minor** Howe in Bessey The Erys. p. 4. — Peritheciis sparsis vel confertis; appendiculis 10-20 perithecium subæquantibus vel paulo superantibus. 5¹

Hab. in foliis Spirææ in America boreali (Howe).

5². **Podosphæra Bresadolæ** Quél. in Bresad. Fungi Trid. fasc. II, p. 25, t. XXX, f. 2. — Peritheciis globosis, membranaceis, superficialibus sparsis, minutissimis, laxe reticulatis e luteolo rufescentibus, demum nigricantibus, 90 μ. diam., appendiculis hyalinis perithecio duplo longioribus, apicibus turgidis dichotomo-ramosis; asco subgloboso, octosporo, mox evanido, 50 μ. diam., sporidiis ovatis luteolis, echinulatis, 15-20 × 12. 5²

Hab. in pileo Arrheniæ Auriscalpii in sylvis cumbrosis, Val di Sole Tyroliæ italicæ. — Etsi matrix tam absona, species generis optima videtur.

15. **Uncinula parvula** C. et P. in Bessey The Erysiph. p. 7. — Hypophylla; mycelio effuso, delicato, evanescente; peritheciis sparsis, globosis, minutis, appendiculis simplicibus, numerosis, perithecii diametrum vix æquantibus; ascis ellipsoideis, rostratis; sporidiis senis. 31

Hab. in foliis Celtidis occidentalis in America boreali.

15¹. **Uncinula heliciformis** Howe in Bessey The Erysiph. p. 6. — Mycelio obsoleto; peritheciis sparsis minutis, globosis, appendiculis 15-30, diametrum perithecii unum vel duplum æquantibus, sursum spiraliter convolutis, deorsum coloratis; ascis 4-6; sporidiis 3-6. 31¹

Hab. in foliis Populi balsamiferæ in America bor. — «An eadem ac *U. luculenta* Howe, mihi ignota?».

3. **Microsphæra Viburni** Howe in Bessey The Erysiph., *M. sparsa* Howe. — Mycelio arachnoideo; peritheciis sparsis globosis, appendiculis, subviginti vel paucioribus, perithecii diametro longioribus, dichotome ramosis, apicibus plus minus curvis; ascis 6-10; sporidiis utplurimum 6. 35¹

Hab. in foliis Viburni (*Sheepberry*) in America bor. (Howe).

23. **Microsphæra Platani** Howe in Bessey The Erysiph. pag. 9. — Mycelio evanescente; peritheciis minutis globosis, sparsis; appendiculis 10-18, perithecii diametro longioribus, apicibus vehementer curvatis; ascis 4-5; sporidiis 4-5. 55

Hab. in foliis Platani in America boreali (Howe).

*) Studiosorum commodo diagnoses specierum v. generum addendorum ita impressæ sunt ut singula argumenta seorsim exsecari et hinc suis locis inseri possint.

24. **Microsphæra Symphoricarpi** Howe in Bessey The Erysiph. pag. 9. — Mycelio effuso, subpersistente; peritheciis sparsis v. confertis; appendiculis 8-16, perithecii diametro bis-quater longioribus, ter-quinquies dichotomis, ramulis divaricatis, sæpe truncatis rectis; ascis 4-6; sporidiis 3-5. 56

Hab. in foliis Symphoricarpi racemosæ in America bor. (Howe).

25. **Microsphæra Menispermi** Howe in Bessey The Erysiph, p. 9. — Mycelio arachnoideo, effuso, subinde evanido; peritheciis sparsis v. gregariis minutis, globosis; appendiculis 10-20, perithecii diametrum subæquantibus; ascis 5-6; sporidiis 3-6. 57

Hab. in foliis Menispermi canadensis in Amer. bor. (Howe).

26. **Microsphæra densissima** (Schw.) Peck, Adde: peritheciis sparsis; appendiculis 6-10; ascis 4-8; sporidiis 8. (Conf. Bessey The Erysiph. p. 11). 58

26[1]. **Microsphæra elevata** Burrill in Bessey The Erysiph. p. 11. — Epiphylla; mycelio arachnoideo, subevanido; peritheciis conspicue reticulatis, 1 mill. diam., prominentibus; appendiculis circ. 12, basi coloratis, simplicibus, subinde prope basim ramosis, solite bis- quater dichotome furcatis, longissimis; ascis 4, ovoideis, conspicue rostratis. 58[1]

Hab. in foliis Catalpæ in America boreali. — Asci 6-8spori.

11[1]. **Myriococcum Everhartii** Sacc. et Ellis N. Am. Fung. n. 766. — Peritheciis dense gregariis, globulosis, obtusis, astomis, 1/6-1/5 mill. diam., indumento bombycino tenuissimo pallide cinereo (in aqua mox disparente) dense vestitis; contextu perithecii areolato, tenui-membranaceo, rufo; ascis....?; sporis (spermatiis?) initio conglutinatis, e globoso angulosis, subinde fere apiculatis, 8-12 μ. diam., granuloso-guttulatis, hyalinis. 119[1]

Hab. in lignis putrescentibus, Newfield. New Jersey Amer. bor. (Ellis). — A *M. præcoci* indumento byssino copioso potissimum dignoscitur hæc species, quam clariss. B. M. Everhart ex West Chester Pensylvaniæ dicamus.

11[1]. **Pisomyxa? Amomi** B. et Br. Fungi of Ceylon n. 1187. — Peritheciis globosis, celluloso-contextis, ex apice hypharum curvarum, intricatarum, nigricantium oriundis, pelliculas atras oblongas formantibus, initio opacis dein hyalinis; ascis..... sporidiis globosis hyalinis. — Pycnidia adsunt: stylosporis oblongis 1-septatis. 120[1]

Hab. in foliis Amomi, Ceylon.

91. **Asterina diplocarpa** Cooke in Grev. X, pag. 129. — Epiphylla, effusa; peritheciis applanato-convexis, orbicularibus 130 μ. diam., fuscis, sparsis vel segregatis; ascis obovatis; sporidiis fuscis uniseptatis, valde constrictis 16 × 8, loculis subglobosis; peritheciis aliis minoribus, subglobosis, macrostylosporas ovatas, fuscas, continuas 18-20 × 10-12 continentibus. 170[1]

Hab. in foliis Sidæ cordifoliæ, Inanda, Natal (Wood).

9[2]. **Asterina similis** Cooke in Grev. X, pag. 130. — Epiphylla, atra, macu- 170[2]
læformis; peritheciis hemisphæricis 80-120 μ. diam., stellato-fissis, hyphis ramosis, radiantibus circumdatis; ascis clavatis; sporidiis ellipticis, uniseptatis, fuscis, utrinque rotundatis 15-17 ⩻ 6; microstylosporis minutis, ovatis, nyalinis.

Hab. in foliis Sidæ rhombifoliæ, Inanda, Natal (Wood). — Affinis *A. myriadeæ*.

9[3]. **Asterina Grewiæ** Cooke in Grev. X, p. 130. — Peritheciis hemisphæ- 170[3]
ricis, atris, opacis, gregariis, punctiformibus 120-140 μ. d., mycelio fusco obsoleto; ascis anguste clavatis; sporidiis cylindraceis, uniseptatis, fuscis, utrinque rotundatis 18 ⩻ 5; hinc illinc conidiis lanceolatis, brunneis, triseptatis, stipitatis, peritheciis immixtis.

Hab. in foliis Grewiæ lasiocarpæ, Inanda, Natal (Wood).

9[4]. **Asterina toruligena** Cooke in Grev. X. p. 129. — Atra, velutina, orbi- 170[4]
cularis; peritheciis applanatis, subdiscoideis, convexis 1 mill. diam. opacis, rugulosis; hyphis fuscis radiantibus, circumdatis; ascis clavatis; sporidiis arcte ellipticis, uniseptatis, fuscis, leniter constrictis 12 ⩻ 5; stromate toruloideo; hyphis erectis, simplicibus, subramosis, fuscis, articulis ellipticis. 8-10 ⩻ 4, dissilientibus.

Hab. in foliis vivis Inanda, Natal (Wood).

9[5]. **Asterina myriadea** Cooke in Grev. X, pag. 130. — Amphigena, sparsa; 170[5]
peritheciis numerosissimis, fuscis, punctiformibus, subglobosis, ad basim applanatis, vel hemisphæricis 70-100 μ. diam. sub lente olivaceis, membranaceis, aliis microstylosporas, ovales, hyalinas 6 ⩻ 3, aliis ascosporas gerentibus; ascis arcte clavatis; sporidiis sublanceolatis, utrinque obtusis, uniseptatis, 10 ⩻ 3, luteo-fuscis.

Hab. in foliis vivis, Inanda, Natal (Wood).

16[1] **Asterina phæostroma** Cooke in Grev. X, pag. 130. — Atra, velutina, 177[1]
orbicularis, demum confluens, vel late effusa; peritheciis hemisphæricis 60-100 μ. diam.; brunneis inter hyphas nidulantibus; ascis amplis, subpyriformibus; sporidiis ellipticis, arcte constrictis, utrinque obtusis, pallidis, uniseptatis, 22 ⩻ 10; mycelio ramosissimo, læte fusco, aculeis rigidis erectis opacis 100 μ. longis, dense ornato.

Hab. in foliis Pavettæ Natalensis (et Kraussiæ?), Inanda, Natal (Wood). — Affinis *A. velutinæ*.

46[1]. **Asterina Himantia** (Pers.) Sacc., *Sphæria Himantia* Pers. Syn. p. 89, 207[1]
Asteroma Himantia (Pers.) Fr. Summa Veg. p. 325, *Ascospora Himantia* (Pers.) Rehm Ascom. n. 131. — Macula nigra ambiente e fibrillis centrifugis orta; peritheciis prominulis seriatis centro confertioribus; ascis initio ovoideis, sessilibus, dein clavatis 30 ⩻ 12, aparaphysatis, octosporis; sporidiis ellipticis, obtusis, continuis, 2-guttulatis, 8-10 ⩻ 3,5, hyalinis.

Hab. in caulibus emortuis Umbelliferarum, e. g. Peucedani in Suecia, Gallia, Germania.

70[1]. **Asterina? stylospora** Cooke in Grev. X, pag. 129. — Gregaria, atra, hypophylla; peritheciis hemisphæricis, opacis, inter hyphas parcas nidulantibus; macrostylosporis ellipticis 26-30 × 10-12 supra rotundatis, infra in mucronem, hyalinum, stipitiformem productis, plasmate fusco, medio fascia hyalina bipartito. 231[1]

Hab. in foliis Sponiæ guineensis, Inanda, Natal (Wood). — Dubia, quia asci ignoti.

12[1]. **Dimerosporium Collinsii** (Schw.) Thuem. M. U. n. 849, *Sph.* (Byssised.) *Collinsii* Schw. Syn. Amer. bor. n. 1512, Peck 29 Rep. on the St. Mus. — Tomento crasso densissime intertexto efficiente plagas latas effusas inter nervos paginæ aversæ foliorum e fusco-nigras, floccis suberectis; peritheciis subiculo huic floccoso, creberrime insidentibus globosis, nigris astomis, vel saltem indistincte ostiolatis, sed demum globulo spermatico irregulari, coronatis; ascis cylindraceis; sporidiis monostichis, hinc abrupte attenuatis, septo (spurio?) inæqualiter divisis, 10-13 μ longis, hyalinis. 243[1]

Hab. in pagina inf. foliorum Amelanchieris canadensis, Center, New York, etc. Amer. bor. (Collins, Peck). — Mala dispositio nominum in Thuem. Diagn. M. U. Cent. VII-IX p. 8, me decipit ut Thuemenio false tribuerim adscriptionem hujus speciei diversissimæ *Asterinæ orbicularis*, quod corrigendum (Cfr. Syll. p. 46 et 54).

38. **Meliola triseptata** B. et Br. — Effusa, magna, velutina, ceterum ut *Mel. amphitricha;* teste Cooke in litt. ex herb. Berk. n. 1137. — Ceylon. 313

39. **Meliola tenuis** B. et C. Rav. Fungi Amer. exsic. n. 831 (sine diagnosi). — Epiphylla, maculas atras subcirculares minutas, atras, velutinas formans; peritheciis globulosis setulis rigidis, rectis acutis vestitis; ascis 2-4-sporis, ellipsoideis; sporidiis oblongis, 50 × 18-20, 4-septatis leniter constrictis, utrinque rotundatis, fuligineis. — Adsunt perithecia minora pycnidica; stylosporis oblongis, 1-septatis, pluriguttulatis, hyalinis, 25-26 × 6-7. 214

Hab. in foliis Arundinariæ, Darien Georgia Amer. bor.

32. **Capnodium Thwaitesii** Berk. Introd. Crypt. p. 274, t. 63 *a.* (sine diagnosi). — Peritheciis subfasciculatis oblongo-pyriformibus, sursum attenuatis, extus granulosis, nigris. 354

Hab in capsulis Ardisiæ speciei, ubi?

78. **Valsa subcongrua** Rehm Ascom. n. 632, Hedw. 1882, p. 75. — Peritheciis monostichis, globosis, in cortice interiore nidulantibus, circa 8 in quovis stromate, dense stipatis, collis plerumque breviusculis, interdum usque ad 1 mill. long. elongatis et subcurvatis, in disculum atrum, planum v. subconvexulum, 0,7 mill. lat., rotundatum conjunctis, disculo corticem pustulatim elevatum coronante; stromatibus gregariis, ramulos ambientibus et epidermidem cribrantibus; ascis clavatis, 8-sporis, 21 × 4-5; sporidiis cylindricis, hyalinis rectis vel subcurvatis, distichis 3-4 × 1; paraphysibus longis, teneris, septatis c. 5 μ. crass. 506[1]

Hab. ad ramum putrescentem Alni viridis in Monte Buchenegg prope Oberstauffen alpium Algoviæ Germ. (Britzelmayr).

109[1]. **Valsa sibirica** Thuem. Beitr. Pilz. Fl. Sib. V, p. 19, n. 920. — Peritheciis sparsis, stromate vix ullo, cortice interiore nidulantibus, 9-12, globoso-conicis, prominulis; ostiolis perforatis, discum fusco-atrum albido-furfuraceum sistentibus; ascis clavato-cylindraceis, curvulis, apice acutiusculis, substipitatis 40 × 6-7, octosporis; sporidiis subdistichis, arcuatis, utrinque rotundatis, hyalinis, eguttatis, 15 × 3. 537[1]

Hab. in ramulis aridis Cotoneastri melanocarpæ in desertis prope Minussinsk Sibiriæ asiaticæ (MARTIANOFF). — *Valsæ leucostomæ* cognata.

6[1]. **Philocopra polyspora** (Ph. et Pl.) Sacc., *Sordaria polyspora* Ph. et Pl. Grev. X, p. 73, t. 158, f. 1. — Peritheciis semiimmersis, sparsis, globosis, setulis parcis nigris superne vestitis; ostiolo elongato; ascis cylindraceis poly-(128?)-sporis 60 × 10; sporidiis ellipsoideis, continuis 5-8 × 4-5, nigricantibus. 911[1]

Hab. in fimo Cuniculorum, prope Bristol Britanniæ (BUCKNALL). — Præcipue sporidiis minutis dignoscenda species.

44[1]. **Anthostomella ammophila** (Ph. et Pl.) Sacc. *Sphæria ammophila* Ph. et Pl. Grev. X, p. 73, t. 158, f. 5. — Peritheciis immersis, majusculis, 2-3 hinc inde confertis, epidermideque nigro-circumscripta velatis; ostiolis minutis, punctiformibus; ascis cylindraceis 80 × 8-10; sporidiis octonis, ovoideis, monostichis, atro-fuligineis, 8-10 × 5-6, utrinque appendicula tenui hyalina auctis. 1071[1]

Hab. in Ammophila arundinacea prope Norfolk Britanniæ.

33[1]. **Anthostoma gastrinoides** Ph. et Pl. Grev. X, p. 71. — Disco concavo, nigro, stromate nigrescente; peritheciis 8-10, circinantibus ligno semiimmersis; ascis cylindraceis 80 × 8-10, octosporis; sporidiis oblique monostichis, atro-fuligineis, ellipsoideis, 15 × 5, initio nucleatis. 2166[1]

Hab. in ramis Viburni, Bristol Britanniæ (BUCKNALL). — *Anth. gastrino* peraffine.

41[1]. **Didymella Rehmii** (J. Kunze) Sacc., *Didymosphæria Rehmii* Kunze Fung. Sel. exic. n. 1875 (absque diagnosi). — Peritheciis dense gregariis epidermide velatis, tumidulis, globoso-depressis, nigris, vix papillatis; ascis clavulatis, 80-90 × 10, paraphysibus filiformibus obvallatis, octosporis; sporidiis monostichis, ellipsoideis, obtusiusculis, uniseptatis, 4-guttulatis, leniter constrictis, 15-17 × 5, hyalinis. 1129[1]

Hab. in caulibus subvivis Verbenæ officinalis prope Eisleben Germaniæ.

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» 1600 l. 6 ascie	» ascis
» 1602 l. 4 hypophylis	» hypophyllis
» 1635 *Oxaldis*	» *Oxalidis*
pag. 433 l. 3 Jussiænæ	» Jussiææ
num. 1728 l. 3 cylindracies	» cylindraceis
» 1754 Adde:	peritheciis 250-300 μ. d..... ascis deliquescentibus

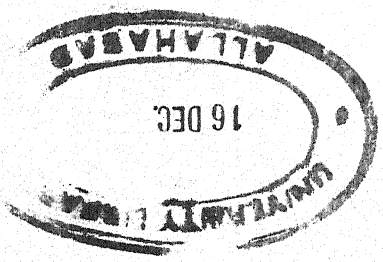
pag. 474 (Prunus).....	600	lege 660
» 474 (Quercus)....	744	» 754
» 474 (Yucca).....	554	» 654
» 509 n. 1869		» 1969
» 510 lin. 1 Saporariæ		» Saponariæ
» 515 l. 7 Lapidii		» Lepidii

num. 2170 Species revera eadem est ac n. 2172, quæ anterior. Ad hanc præter loca, quæ sub n. 2170 citantur, adde Germaniam, Hollandiam, Helvetiam; et synonyma: *Diaporthe Epilobii* Fuck. (nec Cooke) et *Sphærella Fuckelii* Pass.

» 2171 Species evidentissime eadem est ac n. 2196, aptius sub Gnomoniæ nomine servanda. Huc quoque spectat *Sphæria tosta* Cooke F. Brit. ed II. n. 250 (nec B. et Br.).

» 2407 Descriptio delenda: species enim ad *Valsariam* spectat, quam cfr.

» 2676 lin. 2 -emisphæricis lege -hemisphæricis


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